

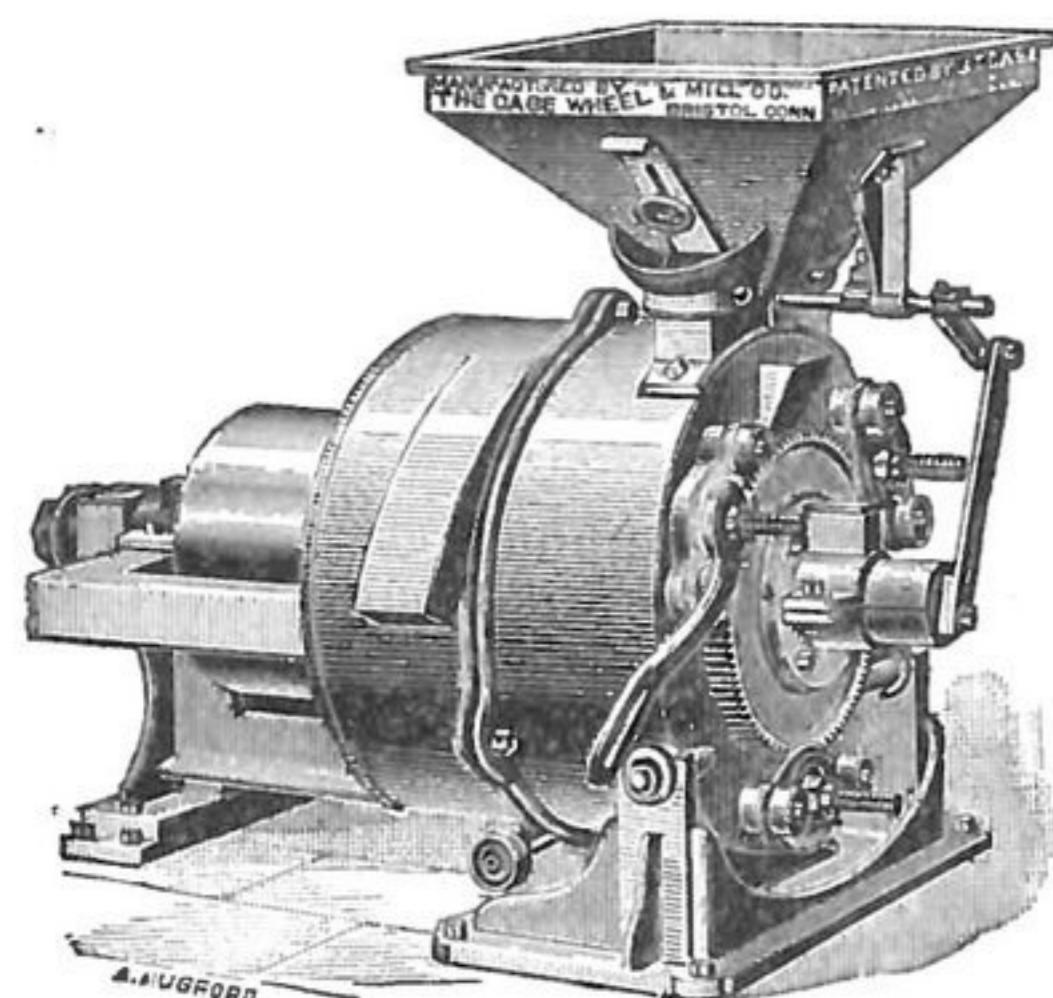
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XX. No. 16.

BUFFALO, N. Y., JUNE 17, 1889.

\$1.50 PER YEAR.

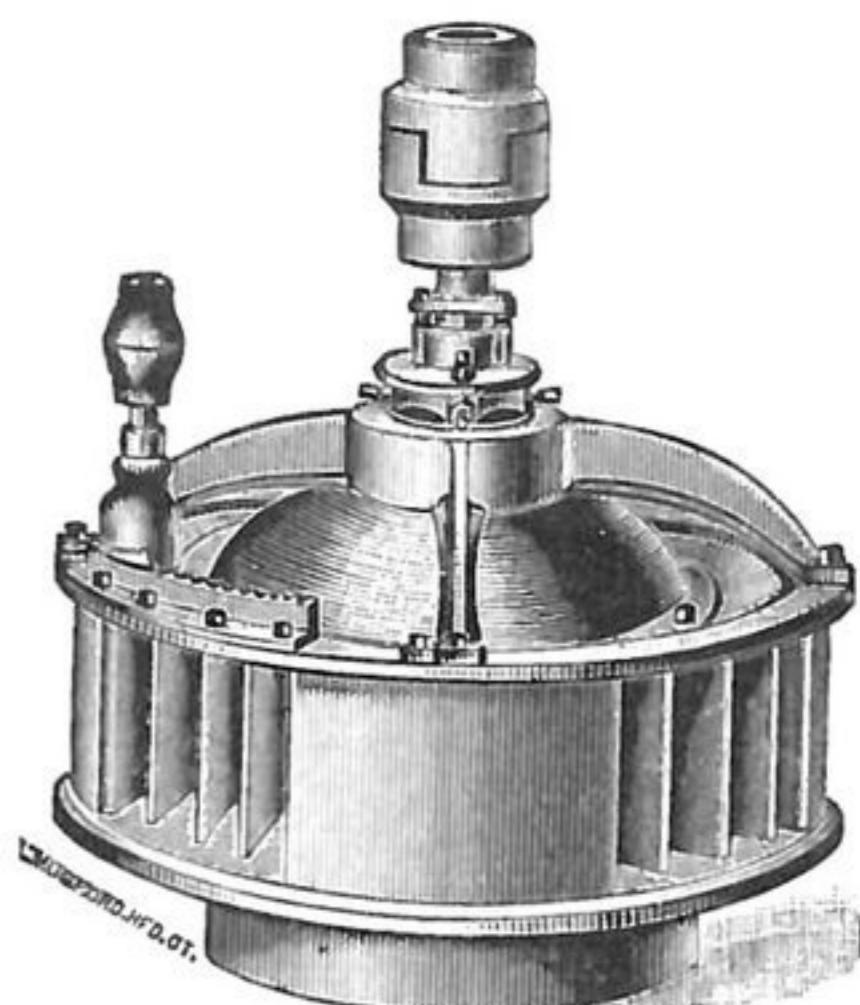


## VICTORY OVER ALL OTHERS. SINGLE & DOUBLE VERTICAL GRINDING MILLS.

(J. T. CASE'S PATENT.)

FACTS ARE MIGHTIER THAN ASSERTIONS. READ WHAT THEY SAY:

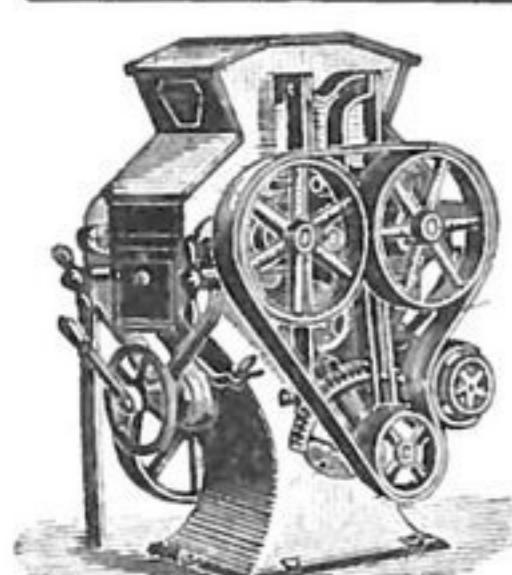
"Our 20-inch mill made by the Case Wheel & Mill Co. is in every respect satisfactory, easy to handle, and best results obtained of any mill in the country, with same quantity coal and power." — A. S. RUSSELL & Co., Meriden, Conn.  
"Superior to any mill in use." — GEO. WESTON, Bristol, Conn.  
"The best satisfaction in quantity and quality." — CHILD'S ELEVATOR, Manchester, Ct.  
"We take pleasure in recommending it." — GARLAND, LINCOLN & Co., Worcester, Mass.  
SEND FOR CATALOGUE—ILLUSTRATED AND DESCRIPTIVE.



### The Improved National Turbine Water Wheel

The Best for Economy; The Best for Durability; The Best for Power. ONE THOUSAND FIVE HUNDRED NATIONAL WATER WHEELS IN USE Prove that our Assertions are Supported by the Leading Manufacturers in the Country. Send for illustrated catalogue and prices to the manufacturers.

**The Case Wheel & Mill Co., Bristol, Conn.**



Wheat Roller Mill.

BECAUSE the adjustable roll is not pushed against its mate but is held rigidly to it, which takes out all vibration.

BECAUSE it does 25 per cent. more work than any other roll.

BECAUSE the heated air is taken out of the machine.

BECAUSE it has the best feeder.

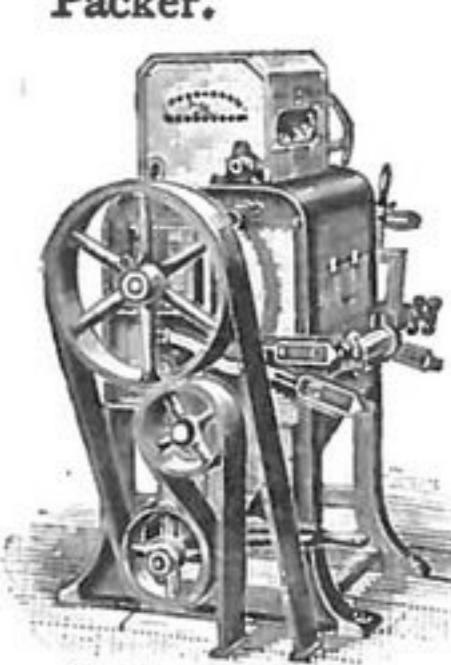
BECAUSE it has no tremor.

BECAUSE it has the effect of a roll without springs.

BECAUSE it can be trammed in a quarter of a minute.

BECAUSE you can tramm either end of the four rolls.

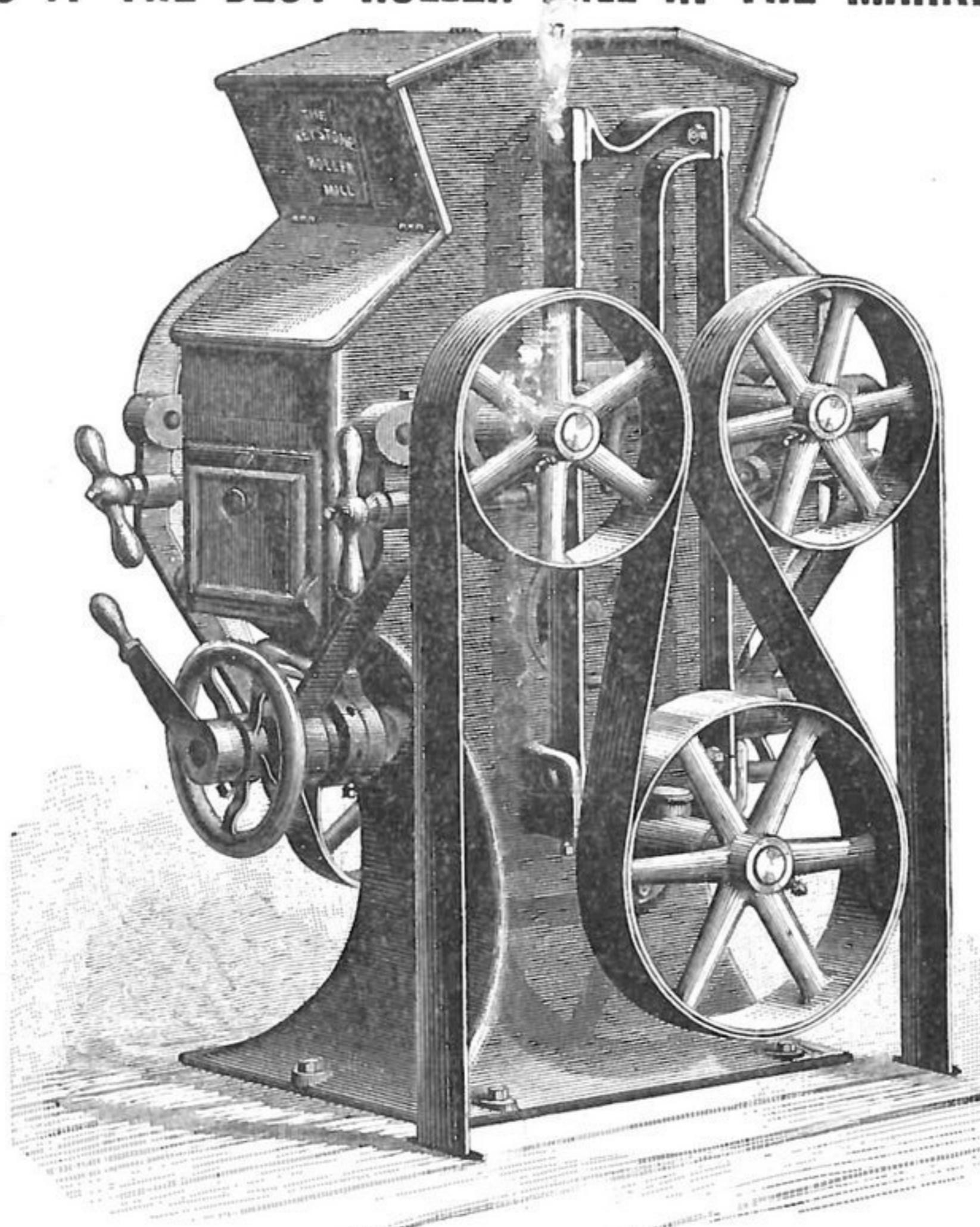
Also ask for prices on the only Noiseless Sieve Scalper, the "Allfree" Improved Purifier, "Climax" Bran Dusters, and "Allfree" Flour Packer.



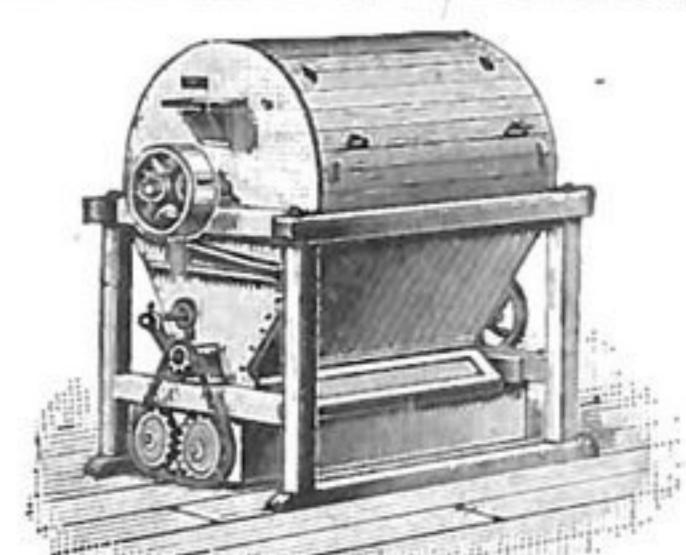
Corn Mill.

## THE "KEYSTONE"

WHY IS IT THE BEST ROLLER MILL IN THE MARKET?



THE KEYSTONE FOUR ROLLER MILL.



Bran Duster.

BECAUSE it runs 25 per cent. lighter than any other roll.

BECAUSE all bearings are universal and never get out of line.

BECAUSE you can throw the rolls apart from either side.

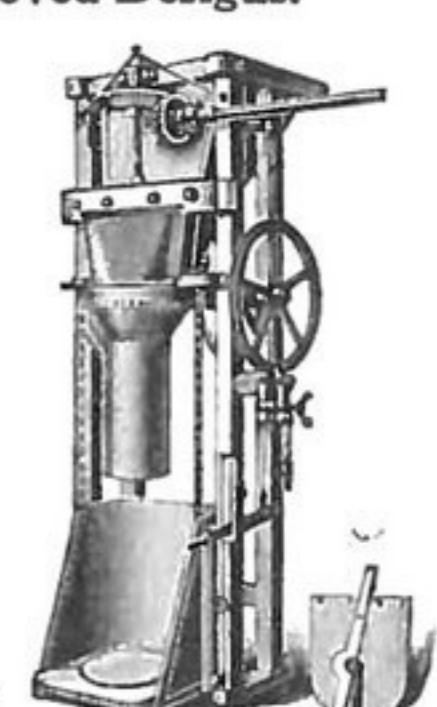
BECAUSE you can set both ends of the roll at the same time with one movement.

BECAUSE only one spring is used for both ends of rolls.

BECAUSE there is no slip to the differential.

BECAUSE no dust escapes from machine, all openings being covered.

Also ask for prices on "Allfree" Centrifugal Reels, "Success" Bolter, Three Reduction Corn Mills, Latest Improved Designs.



Flour Packer.

Complete Outfits for Flour or Corn Meal Mills of any Capacity.

**THE J. B. ALLFREE CO., INDIANAPOLIS, IND.**

103 & 105 South Pennsylvania Street.

# Some Millers' Opinions

## EXPRESSED THIS YEAR, 1889.

SHREVE, O., Jan. 25, 1889.

THE CASE MFG. CO.

*Gentlemen:* We called at Bank Jan. 22d and paid our last note, which we believe closes our dealings so far as our contract with you for remodeling our mills is concerned. We want to say that we are entirely satisfied with all our dealings with you. Our mill is all we could expect, and is doing us good work. Extending to you our best wishes, we remain,

Very respectfully yours,  
FOLTZ & BRENEMAN.

—O—

WAVERLY, O., JAN. 27, 1889.

THE CASE MFG. CO.

*Gentlemen:* Although it has been but a few weeks since I have gotten my Waverly Roller Mills started as recently re-furnished with your system of breaks and rolls, yet I have already learned to my satisfaction that your outfit of milling machinery is the best in use to-day. I am now making a grade of flour that is equaled by few and excelled by none, in fact superior to any flour produced in this part of Ohio, and is fast distancing all competitors in the market. I can conscientiously recommend you as General Mill Furnishers.

Yours truly,  
JAS. EMMETT.

E. M. NEWTON.

D. B. SMITH.

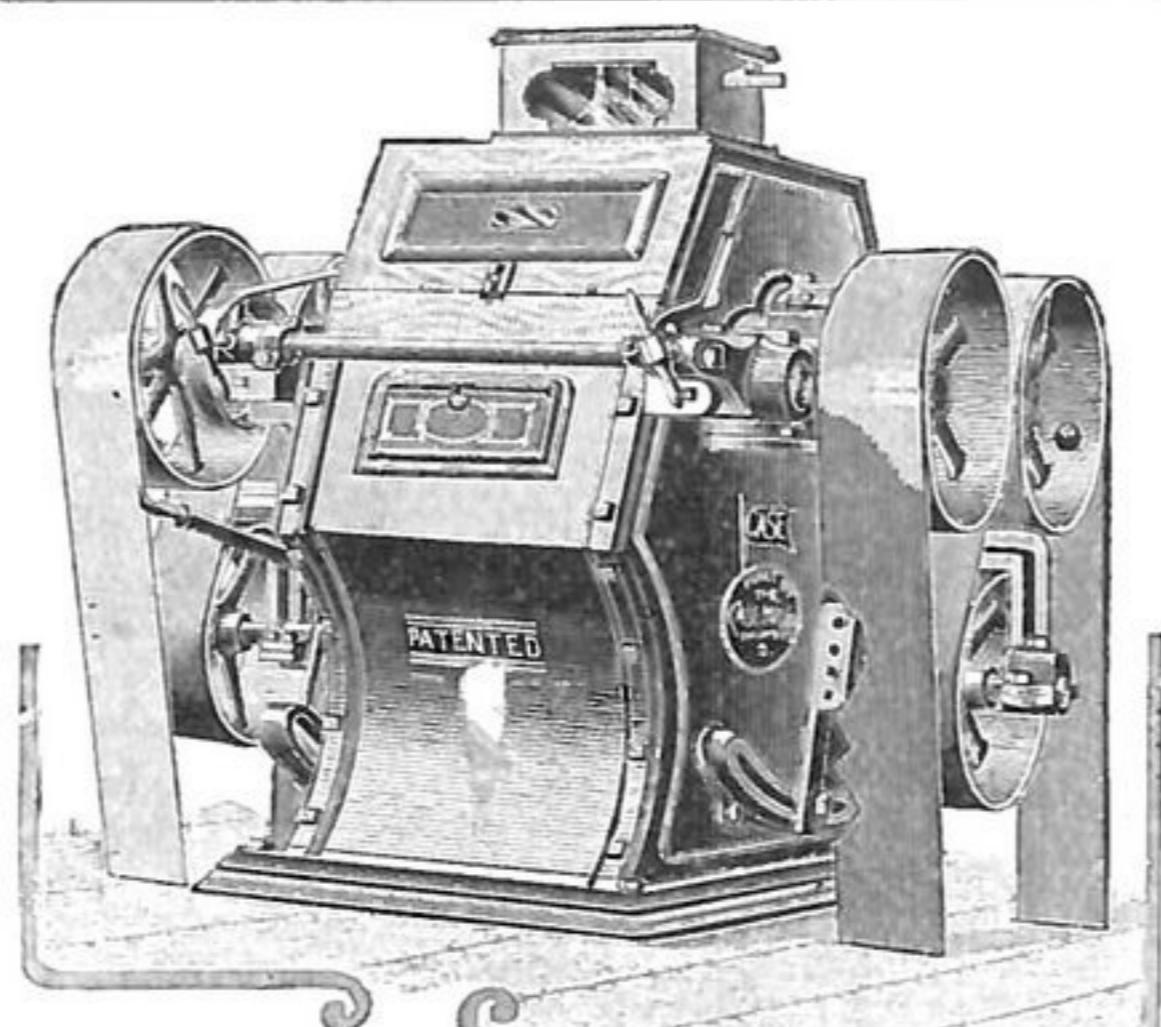
G. TERRY.

OFFICE OF GUTHRIE MILL CO.,  
GUTHRIE, Ky., Feb. 26, 1889.

CASE MFG. CO.

*Gentlemen:* Yours of the 20th to hand and in answer to inquiry about the five Inter-Elevator Flour Dressers bought of you will say that they are working perfectly satisfactory, and we regard them as being the best bolts we have ever seen, and if we had to build another mill, would use no other. We will take pleasure in showing and recommending them to any one who may be in need of a Flour Dresser. Wishing you much success in the future, we remain,

Yours truly,  
GUTHRIE MILL CO.,  
By E. M. Newton.



*The Gem Roll of the World.*

LEONIDAS, MICH., Feb. 4, 1889.

THE CASE MFG. CO.

*Gentlemen:* In reply to yours of the 31st ult., as to how I liked your machinery, would say I have a 3-break mill using 3 double stands of 6x18 Case rolls, one double stand of 6x15 rolls made by another firm. We started our mill September 1, 1888, and I must say *your rolls are more than you claim for them.* They started from the word "go." Not a single "hot journal," or any thing else to cause any trouble in the least. The other stand has been a continual bother from the start, running hot, and the feed would not work only in bunches, and let me say right here that *they cost me more money than the Case did.* and I mean in the near future to displace it by a *Case.* Your feed is *simply perfect.* It feeds even the full length of the rolls, and the beauty of all is we can stop and start the Case Rolls without touching a single lever; the other stands wants two men to stop and start. I also have a double stand of 9x18 Case rolls for feed. It does good work with half the power a 36-inch buhr took for same amount of work. Should you wish to send any parties here to see my mill at work, I can prove to them all I have said. With very best wishes to the Case Company, I am, very respectfully yours,

GEO. ENGEL,  
Successor to Espenhain & Engel.

## WE BUILD NONE BUT FIRST-CLASS MILLS AND WILL GUARANTEE Each Mill We Build to Produce Results Excelled by None *COMPLETE LINE OF MILL SUPPLIES AT LOW PRICES.*

We have the most Complete Plant for Regrinding and Recorrugating Rolls, and put in Any Style Cut Desired.

MACHINE WORK OF ALL KINDS DONE PROMPTLY.

—ADDRESS—

# THE CASE MFG. CO., COLUMBUS, O.

 PLEASE MENTION "THE MILLING WORLD."



CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XX. No. 16.

BUFFALO, N. Y., JUNE 17, 1889.

\$1.50 PER YEAR.

THE May fire-losses in the United States and Canada footed \$10,000,000. The milling and allied interests contributed about \$500,000. The total loss for the first five months of 1889 is \$56,513,000, against \$57,687,000 in 1888 and \$51,887,000 in 1887.

THE degree of intelligence with which the fake dailies do *not* discuss the crop situation is admirably illustrated in the following statement in the Chicago "Times" of June 4: "The 'bulls' are greatly incensed at the turn affairs have taken. For the first time in almost two years they were enjoying the luxury of a genuine bull market, which was the result of the rosy outlook for crops all over the country." And the men capable of confusion so astounding are the men who "dish out" the market reports! Of such is the kingdom of gamblers?

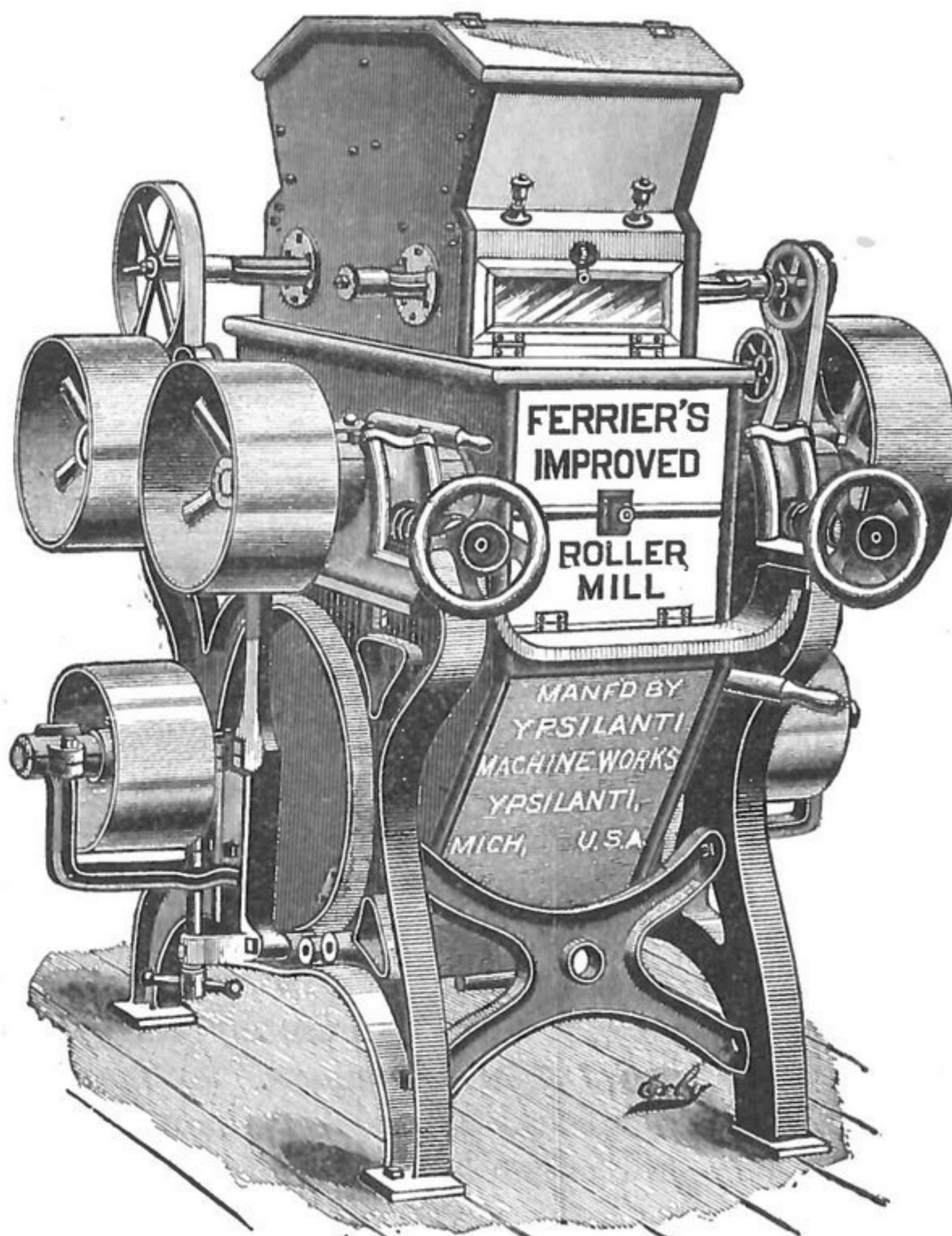
THE breaking up of the great wheat-farms of Dakota into smaller farms may have an important influence on the cost of growing wheat in that section of our country. The large farms employed all the most improved appliances and reduced the cost of wheat-growing to a very low figure, thus in a measure dictating prices to the smaller farmers, who could not afford to utilize all the labor and time saving devices used by the "bonanza" farmers. The disappearance of the grower who can turn out a million bushels of wheat a year will certainly leave the market in better shape for the grower who can turn out only 1,000, or 2,000, or 5,000 bushels.

THE Minneapolis weakly windbag rises to remark that there are ten journals circulating in the milling field that are not "legitimate" milling journals. Here is the list of the chief milling papers in the United States: 1. THE MILLING WORLD. 2. "The Modern Miller." 3. "The American Miller." 4. "The St. Louis Miller." 5. "The Roller Mill." 6. "The Millstone." 7. "The Millers' Review." 8. "The Kansas Miller and Manufacturer." 9. "The St. Louis Merchant, Miller and Manufacturer." 10. "The United States Miller and The Milling Engineer." The eleventh is the Minneapolis weakly windbag, which, according to its own modest estimate of itself, is the only "legitimate" milling journal in the United States! Neighbors, what do you think of the Minneapolis weakly windbag's classification? Those Minneapolis egotists seem to think that a milling paper must be a gambler's paper. They never print an article of any use whatever to practical millers. Their aim is to cater to the gamblers and speculators in grain and flour, and their limited influence in that direction is equaled only by their unlimited gall in wiping the real milling journals out of existence as with a sponge. And yet, strangely enough, the other papers, the real milling papers, appealing to the flour-makers, go on living despite the nasty, stupid, narrow, inflated hoggishness of the Minneapolis weakly windbag.

CERTAIN omniscient periodicals, devoted principally to flour and grain gambling interests and incidentally to milling interests, assert that American milling is doomed unless the foreign market is kept open to American flour. This is rot, pure and proper. It is twaddle by bumptious ignor-

muses, who either will not or can not see as far through a millstone as the hole goes. It is empty gabble by men who assume that millers know nothing about the probable future of their own business, and that in their darkness they will turn for light to Minneapolis windbags, who certainly do not know enough to make the shade of Solomon uneasy over his reputation as the wisest human. Despite all the gabble that oozes from Minneapolis, there are some plain facts that augur permanency and prosperity for American milling, independently of the export feature of the business. In the first place, the mills of the United States are called upon to grind at least 65,000,000 barrels of flour a year, allowing a barrel to each inhabitant for consumption. Without the demand for a single barrel for European or any other countries, that would be an important business. The natural increase of population in the United States is over 1,250,000 a year. That increase means an increase in consumptive capacity amounting to 1,250,000 barrels a year, or about a barrel per capita. In twenty years the consumptive demand in the United States will rise from 65,000,000 barrels to 85,000,000 barrels a year. This computation does not include increase based on immigration, which element in twenty years will amount to at least 6,000,000 increase in population, calling for another addition of about 6,000,000 barrels to the consumption at home, swelling the total to over 91,000,000 barrels a year, which the mills of this country will be called upon to grind. Again, while all this increase in consumptive demand at home is going on, the countries that now import will all the time be increasing their population and therefore increasing their importations, so that, calculating on the present acreage sown to wheat in the world, the demand is sure to outrun the supply in the near future. Just now the wheat-growing business is in a transitional, experimental state, but enough may be gathered from the experience of the past ten years to justify a forecast of the next ten or twenty years. 1. European enterprise has drawn upon the wheat resources of the whole world. 2. All those resources are found to be variable, unreliable, subject to enormous changes downward and not, as has generally been claimed, capable of indefinite expansion at will. It is practically confessed that India has passed the climax of her producing power; that Russia can not be depended upon for regular annual surpluses of large amounts; that the southern hemisphere is unable to guarantee a supply for its own consumptive demands; that Canadian production is a wholly problematic element in the situation, because of liability to inflictions like the frost of August, 1888; that the increase of population everywhere in civilized countries means a restriction of wheat acreage; that in the United States alone is there any reasonable prospect of an important increase in wheat culture, and that even in the United States the limit of expansion promises soon to be reached. Alarmists and narrow ignoramuses, who base all their views upon one very small part of a very large whole, should look around them a little more freely. Their restricted brains do not contain the whole world, and their puerile drivel can not annihilate the great facts that stand forth like mountains in the milling landscape. American milling will not die simply because of the quacking of the Minneapolis geese.

# YPSILANTI MACHINE WORKS, YPSILANTI, MICH.



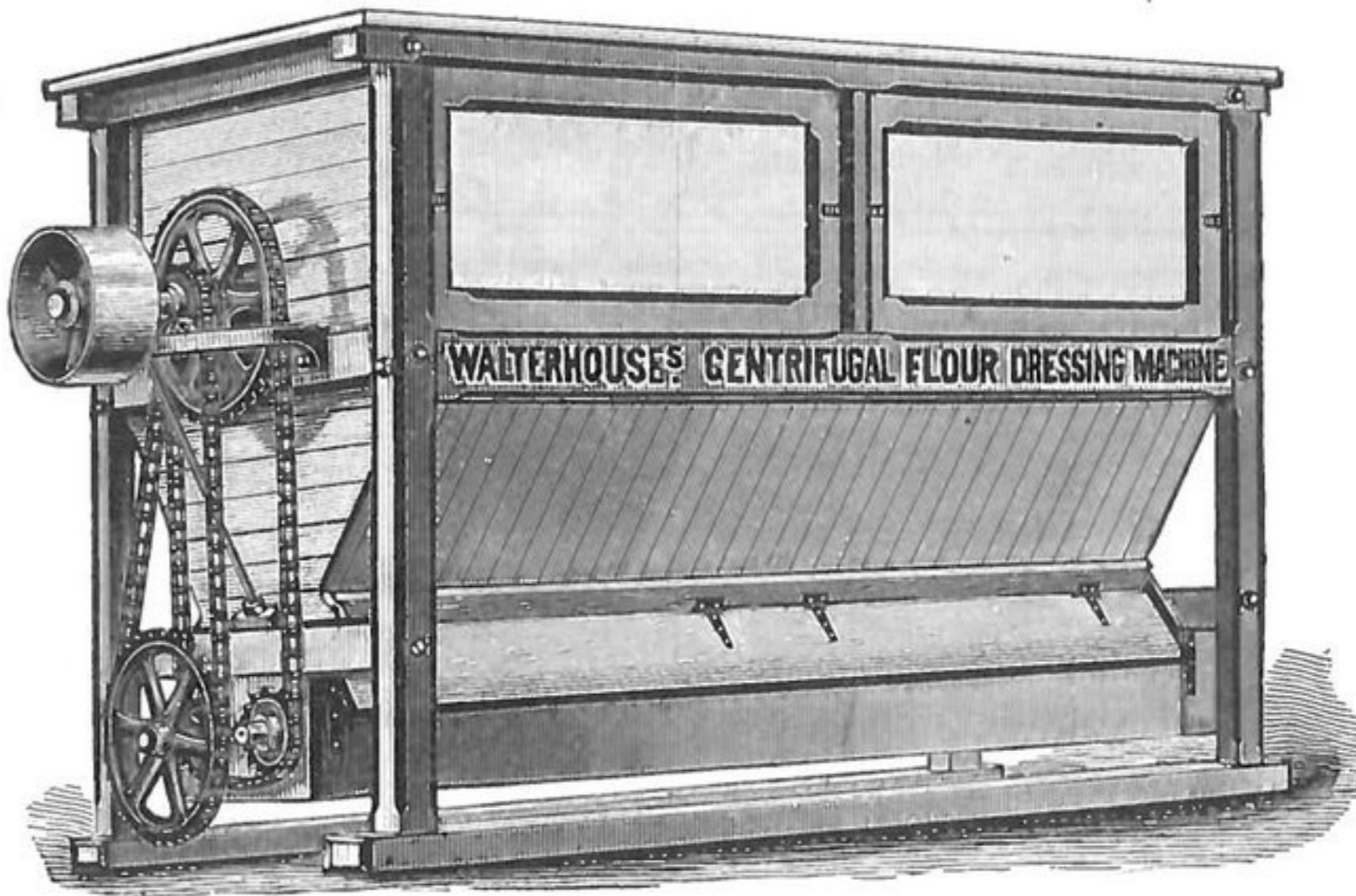
Sizes of Ferrier's Improved Four- }      **6x12**      **6x15**      **6x20**  
                   Roller Mills.      }      **9x15**      **9x18**      **9x24**

NASHVILLE, TENN., MAY 3, 1889.  
YPSILANTI MACHINE WORKS, YPSILANTI, MICH.

*Gentlemen:* We have had a line of your "Roller Mills" in use for over two years, and they have given entire satisfaction in every respect. They work like a charm, and their ease of adjustment and solid structure, together with the excellent finish you give them, can but recommend your machines to the milling public.

commend your machines to the mining public.  
Yours respectfully, A. R. DICKINSON & CO.

**MILL BUILDERS**  
And Manufacturers of  
**FLOUR MILL MACHINERY**



JOHN ORFF, PROPRIETOR OF  
EMPIRE FLOURING MILLS.  
FORT WAYNE, IND., APRIL 10, 1889.

YPSILANTI MACHINE WORKS, YPSILANTI, MICH.

**Gentlemen:** The Centrifugal Reel bought from you some time ago is doing its work complete in every respect. It does a large amount of work, and does it well. Should we make further changes in bolting, shall use more of them. Wishing you success, we remain  
Respectfully  
JOHN OREE

To You and Your Maximum Workers

OFFICE OF LEXINGTON MILL CO.,  
LEXINGTON, MICH., JAN. 22, 1889.

*Gents:* In reply to yours of June 5th, would say that we are well pleased with our mill. It has more than met our expectations. Although it was feared that the six-inch rolls would not prove a success, we find them to be complete in every respect. We are making as fine a flour as there is made in the state, and we guarantee our patent to be equal to Minnesota Patent. The mill has given us no trouble whatever since we started it, and for plan and workmanship, your Mr. G. Walterhouse deserves great credit. If your friends doubt it would be pleased to have them come and see for themselves.

Yours respectfully, LEXINGTON MILL CO.

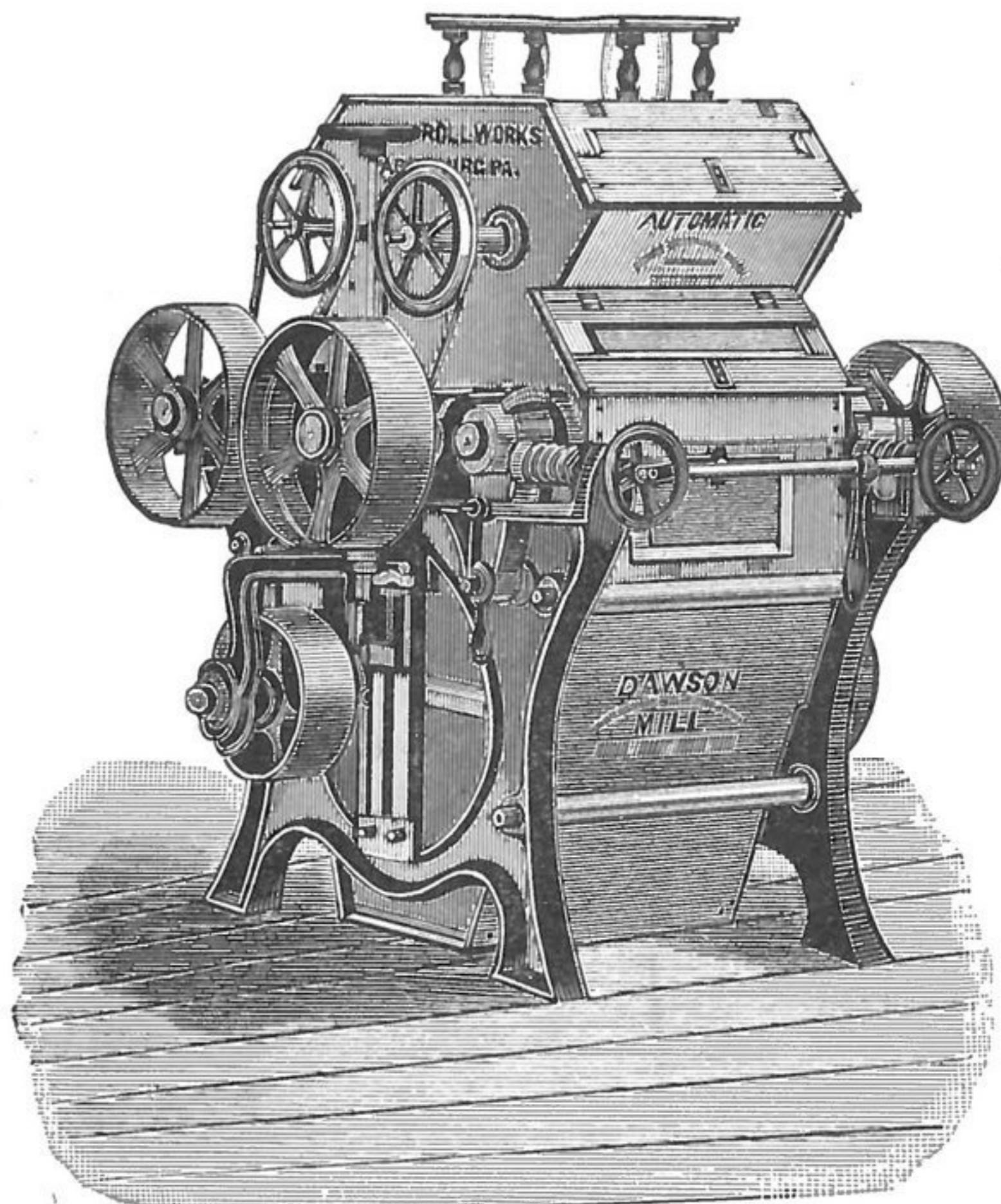
# Dawson's Roller Mill

Is acknowledged to be the very best in the market. It has our Patent Automatic Centrifugal feeder, never failing to feed the stock the full length of rolls in an even sheet. It is the Latest and Best feed out, uses less power and is simple in construction. It can be placed on any style of machine with little expense. We use for roll bearings phosphor-bronze metal which will admit rolls being run at any speed without heating and with little friction, and uses little oil. We use the Dawson Corrugation, which is admitted the best in long or short system mills as the action is granulating rather than CUTTING.

*We have a large plant to Re-grind and Re-Corrugate Rolls.*

Owing to our late increased facilities and central location we are enabled to ship goods promptly on the shortest notice.

PARTIES CONTEMPLATING REMODELING THEIR MILLS OR  
BUYING ANY ROLLER MACHINES ARE REQUESTED TO PUT  
THEMSELVES IN CORRESPONDENCE WITH US.



FOR PRICE LISTS AND CIRCULARS, ADDRESS,

# **Dawson Roll Works, Harrisburg, Pa.**

# MILLING WORLD

AND  
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets, Over Bank of Attica.

McFAUL & NOLAN, - - - PROPRIETORS.

THOMAS MC FAUL.

JAMES NOLAN.

## SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in unregistered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

## ADVERTISING.

Rates for ordinary advertising made known on application.

Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning, to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

## EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trades.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

## THE MILLING WORLD, BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

## SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

## BUCKWHEAT MILLING A SPECIALTY.

A reliable Roller Miller wants work. Can make one-third more buckwheat flour than average millers, conditions the same. Granulated meal, etc. H. N. Z., 228 James street, Buffalo, N. Y. 710

## SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office, 10 cents must be added to pay postage.

## WANTED.

To rent a small flour mill, roller preferred, with view of buying, or buhr mill properly located. JOHN G. DIXON, Gratiot, LaFayette county, Wis. 14

## A GOOD OPENING.

A good opening is offered for an Exchange and Custom Flouring Mill at Waterville, Southern Minnesota, in the centre of the Cannon River Valley. The best wheat district in Minnesota. For further details address DAVID B. PARSONS, Waterville, Minnesota. 1417

## FOR SALE.

Several good second-hand and new turbines of various styles. Second-hand price list and descriptive matter and prices of our new machines sent free. Every one interested in the shortest route to successful milling on rolls or in grinding corn and feed with the least expense of power, should address us before buying.

FLENNIKEN TURBINE CO., Dubuque, Iowa.

8tf

## MILL MACHINERY FOR SALE.

One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make. One 20-Inch Vertical Portable Mill, French Buhr Stone, hung on horizontal shaft; capacity 25 to 40 bushels per hour; new, best make. One 14-Inch Vertical Feed Mill; best make, new, a bargain. One No. 6 Dustless Separator; new, a bargain. One No. 1 Full Rigged Combined Dustless Separator; new, a bargain. Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour. Two No. 1 Corn Shellers. New. One No. 2 Purifier. New. Best make. A bargain. For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf



If you are desirous of obtaining the best Mill or Cob Crusher, send for our catalogue and be convinced that our's fill the bill. Can not fail to please you. They are guaranteed to prove as represented.

C. C. PHILLIPS,  
OFFICE, 20 SOUTH BROAD STREET,  
PHILADELPHIA, PA.

## MILL WANTED.

I want to rent a good water power custom mill for a long term of years. For particulars address "W," care of THE MILLING WORLD, Buffalo, N. Y. 16

## FOR RENT CHEAP.

A hundred-barrel flouting mill, and the late roller improvements, a large feed grinding trade in connection. Mill has a good exchange and local flour trade, situated on the C. and N. H. Ry, at Harvard Junction, sixty-three miles from Chicago. THE HARVARD SEWING MACHINE CO., Harvard Ill. 1215

## FOR SALE.

Our 4-run mill, water and steam power; water nine months of the year; mill lately fitted up with Aug. Heine System of Bolting. Mill is in first-class repair; also saw-mill on same dam; about thirty acres of land with the property; good stand for a roller mill, fine grain country in Central New York lake region; four miles from Lehigh Valley Railroad. Call on or address, MOSS BROS., Waterburgh, Tompkins county, N. Y. 1417

## FOR SALE.

A flouting mill at Washington, Tazewell county, Ill., three run of buhrs, good engines and mill complete. Good wheat section and practically no opposition. Present value of milling winter wheat 72 to 75 cents. Coal \$2 per ton. Railroad tracks to mill. Will sell very cheap on easy terms. Apply to or address, P. B. & C. C. MILES, Room 24, Chamber of Commerce, Peoria, Ill. 1417

## FOR SALE.

"Genesee Valley Mill," situated 27 miles south of Rochester, N. Y., on the Genesee River. Abundance of water power at all times. Western New York & Pennsylvania R. R. runs past its door. No carting needed; loads and unloads cars by elevators and spouting. Coal sheds, etc. Good trade. Size of main building 30x50 feet, four stories; wing 30x36 feet, two stories high. Three sets of first-class stones, one double set of rollers, all in good order. Large pump in mill to supply water for large salt block near by. Pump pays about \$300 per year. Splendid wheat country. Suitable dwelling house near by. Inquire at mill, or address, S. H. BASOM, Administrator, Alabama, Genesee county, N. Y. 1114

THE thirteenth annual convention of the Millers' National Association at Milwaukee is a thing of the past. The association also seems to be a thing of the past, if one may judge by the slim attendance, the lifelessness, the lack of interest, the shortness of session and the general indefiniteness that characterized the meeting. Readers of THE MILLING WORLD are well aware of the causes that have led to the disintegration of the association. It is an exporters' organization, and it has therefore no interest to the millers of the United States as a class. It has been managed by men who know little and care less about the practical flour-maker. Its meetings have been absolutely void of interest to any but exporting millers. Instead of catering broadly to the needs of millers, it has been manipulated in the selfish interests of a narrow clique. It may have an excuse for existence, but it has had no right to the title it bears, and it has not benefited the millers under whose name it has sailed. We have been accused of "belittling," the association. Nonsense! It would be as reasonable to accuse us of belittling a molecule or an ultimate atom, or of stabbing a hole in space or air. We have pointed out the evils in management, the mistakes in aims and the deceit in claims. We have foretold the failure or the dissolution of the organization. In doing all this we have simply recorded facts and drawn conclusions from them. If the facts warranted the conclusions, as they seem to have done, whose fault is it? This journal has recorded, not created, those facts. The millers of the United States ought to have a representative national organization, but it can never be built on the foundation of the present "national" body. Has the Milwaukee fiasco taught the managers any valuable lesson? Are they now satisfied that they can not increase the "national" body by forming and forcing into it any number of minor county, sectional and state bodies? They have been trying that plan ever since the Buffalo convention in 1888. What is the result? There never were more millers enrolled in the various minor bodies than now, and there never were fewer millers enrolled in the "national" body than now. The minor bodies appeal to and interest their members, the "national" body does not. Hence the success of the former and the failure of the latter. We do not say that the "national" body is as dead as a door-nail, but it looks that way now.

NOTWITHSTANDING the generally roseate reports on the condition of the wheat crop of 1889, it begins to be apparent that the reporters have been slow to get at the real truth, and that the crop is not likely to be a bonanza crop, after all. 1. The spring drouth damaged the wheat more than was at first reported. 2. The subsequent over-abundant rains did more damage than was reported. 3. The insect pests have done far more damage than was reported. These three points are now fast becoming apparent, and, despite the probably much increased area and the favorable reports, we shall expect to see the estimates dwindle steadily till harvest.

## THE MILLERS' NATIONAL ASSOCIATION.

The thirteenth annual convention of the Millers' National Association of the United States was held in Milwaukee, Wisconsin, last week. On Monday there was a meeting of the executive committee at the Plankinton House, which was attended by George H. Bain and Alex. H. Smith, of St. Louis, Mo., A. R. James, of Buffalo, N. Y., F. L. Greenleaf, of Minneapolis, Minnesota, Homer Baldwin, of Youngstown, O., and secretary S. H. Seamans, of Milwaukee. The transactions of the meeting of the executive committee were not made public, with the exception of the order of business adopted. It was decided to hold the convention in the hall of the Young Men's Christian Association. After the meeting of the executive committee, the Milwaukee Chamber of Commerce was called together by Vice-President Bacon, who announced that the Chamber would, on Tuesday, June 11, formally receive and welcome the delegates to the convention. The hour for the reception was fixed at 12 o'clock, and Mr. Bacon announced that President Mohr, of the Chamber of Commerce, President Andrews, of the Merchant's Association, President Kelly, of the Association for the Advancement of Milwaukee, and Mayor Brown, of Milwaukee, would make five-minute addresses.

Tuesday witnessed the opening of the regular convention. The reception at noon by the Chamber of Commerce was a hearty demonstration. The millers, with the members of the reception committee, marched from the Plankinton House to the Chamber of Commerce building, where they were greeted with music by Clauders' Orchestra, stationed in the gallery. Entering the Chamber, they were pleasantly welcomed. President Mohr, of the Chamber of Commerce, called the assembly to order. On the stage with him were Vice-president and Acting-president Greenleaf, of the Millers' National Association, Chairman Smith of the executive committee, Mayor Brown and President Kelly, of the Milwaukee Advancement Association. There were about 30 millers present at the meeting. President Mohr welcomed the visitors in the following speech:

GENTLEMEN OF THE MILLERS' NATIONAL ASSOCIATION: Allow me on behalf of the Chamber of Commerce of Milwaukee to bid a hearty, cordial welcome to an association so closely allied with us through ties of interest and sympathy, and let me assure you that we feel proud of the privilege of greeting, in our hall, a body of men representing one of the greatest and most useful industries of this and other countries. A factor of civilization, it has been one of the most beneficial of all to mankind from the time when a hand-mill was the only known machinery, or a single horse on a tread-wheel had to furnish the motive power, to the living present, when milling has become identical with absolute science, and the American merchant miller of to-day, in order to be successful, needs not only to be an expert theoretically and practically in his pursuit, but also a first-class man of business, to meet all contingencies, changes of trade, conditions and the competitions of the world. And you, gentlemen, and your organization represent business ability and talent in such high degree and marvelous enterprise that we may well feel honored through your visit. Permit me to express the hope that your honored organization may long live and thrive, and that your business meeting in Milwaukee may contribute toward bringing about desired results. Again let me say, welcome!

Hearty applause followed this speech, and Mr. Mohr introduced Mayor Brown, who extended to the millers a most cordial welcome on behalf of the city of Milwaukee. He said among other things, that every trade and occupation has its organization, which generally is beneficial, and that there is no calling more ancient, more honorable or more necessary than milling. After a brief and entertaining sketch of the evolution of milling, Mayor Brown told several witty illustrative stories and concluded by saying: "Gentlemen, you have the freedom of this city; if you see any thing you want, take it; if you want any thing you do not see, apply to my friend, President Mohr, who, though modest and quiet, is like the still water."

The next speaker was Acting-president Greenleaf, who responded on behalf of the Millers' National Association. He said that, with the vivid memory of the seemingly boundless hospitality of the people of Milwaukee displayed during the meeting last December, the millers had felt "a little delicate" about visiting Milwaukee so soon again, but now, having overcome their scruples, they were glad to be again in the beautiful city. He said that he and other millers proposed to visit Milwaukee again when the "boom year," for which all good millers are hoping, arrives. Mr. Greenleaf paid a warm tribute to the memory of the late Edward Sanderson, in whose death the milling fraternity

have suffered an irreparable loss. His address throughout was marked by good taste and sentiment, and he was roundly applauded.

Mr. George Bain, of St. Louis, followed Mr. Greenleaf, who in a brief and witty speech entertained the assembly. President Kelly, of the Advancement Association, welcomed the dusty millers, who, he said, are not in the least dusty in the estimation of Milwaukee. He asserted that, in case any of the visitors get into any sort of trouble while in Milwaukee, Mayor Brown would help them out, but, in case the Mayor would not, they were invited to appeal to him and he would extricate them from difficulty. He urged all the visitors to move to Milwaukee and take up their permanent residence there, all of which amused the visitors highly. The last speaker was Alex. H. Smith, of St. Louis, chairman of the executive committee, who said that, having once been president of a board of trade, he knew that the most popular member is the one who makes the shortest speeches. He thanked the Mayor and other members of the welcoming committee on behalf of the association, and President Mohr then dismissed the meeting with the announcement that the millers had the permission of the Mayor to "turn to and scalp."

The regular convention was opened at about 2 o'clock in the afternoon. Acting-president Greenleaf presided, in the absence of President J. H. Seybt. The small attendance put a damper on the convention at the start, and at the informal meeting in the forenoon it had been decided to shorten the proposed 4-day programme to a 2-day basis. Not much business of importance was brought forward, and the handful of millers present seemed to be lost in wonder and amazement, wonder what they were in Milwaukee for, and amazement that no one seemed to know or care why they were there. The city papers had been predicting for several days that over 100, or 200, or 300, or even 400 millers would be in Milwaukee to attend the convention, and one sarcastic visitor was heard to "wonder who in the name of Ceres had been pumping wind into the Milwaukee newspaper reporters." When the corporal's guard turned out and burst on the astonished Milwaukee optic on Tuesday, on their way to be welcomed by the Chamber of Commerce, many other sarcastic observers were heard to echo the wind-pumping conundrum. The welcomers seemed to outnumber the welcomed, and there was a curious air of astonishment everywhere noticeable.

The afternoon session on Tuesday was dull, stale, flat and unprofitable. Mr. W. De LaBar, a Minneapolis gentleman, with an evident penchant for coarse-food subjects, read a paper on the subject of "Compressed Bran." It was at first thought the title of the paper portended a reference to the compressed size of the convention, but as Mr. De La Bar warmed to his subject and displayed samples of bran pressed into cakes, which had been brought from Germany, the millers rallied from their lonesomeness sufficiently to become somewhat hilariously interested in the proceedings. He explained the German process of making bran into cakes by the use of superheated steam, which dissolved the gluten outside the cake, while subsequent powerful pressure molded the masses to dry cakes which are capable of indefinite preservation. The lecturer stated that coarse meal, unbolted meal and broken grain may be caked in the same way. Just what relation Mr. De La Bar's German bran-cakes bear to American milling seems to be somewhat vague, but he was probably sent to the meeting in the interest of certain Minneapolis individuals who are prone to revel in "Bran as a Hog Food." One of the auditors advised Mr. De La Bar to apply for a \$100,000 prize offered for a bran-cake-making invention, and others indulged in humorous horse-play over "pumpernickels" and other things about as closely related to "Compressed Bran" as that subject is related to American milling.

Some serious work was attempted in the discussion of an export bill of lading. It was stated that nothing had been accomplished in the way of formulating a bill, and Mr. Alex. H. Smith said that the situation was a question of killing snakes in Ireland. There were no snakes in Ireland, he

said, to kill. Nothing had been done in the matter of export bill of lading, because there had been practically no export business, which may be taken to be Mr. Smith's way of saying that the export flour business this year is less than that of last year. Mr. Bain suggested that the Acting-president be empowered to appoint a committee to confer with the ocean steam-ship companies and secure their agreement to adopt the form of bill of lading formulated a year ago. The suggestion prevailed, and Mr. Greenleaf appointed Alex. H. Smith, of St. Louis, Mo., Wm. Sanderson, of Milwaukee, Wis., A. A. Freeman, of La Crosse, Wis., and New York, N. Y., A. R. James, of Buffalo, N. Y., and A. L. Loring, of Minneapolis, Minn., members of the committee.

The following named gentlemen were appointed a committee to report nominations for officers of the Millers' National Association for the ensuing year: Alex. H. Smith, St. Louis, John Washburn, Minneapolis, L. R. Hurd, Fargo, Wm. Sanderson, Milwaukee, and George Urban, jr., of Buffalo. The committee were to meet at 9 a. m. on Wednesday. Chairman Greenleaf appointed J. S. Pillsbury, of Minneapolis, and J. W. Mathews, of Buffalo, delegates to represent the Millers' National Association of the United States at the international meeting of millers to be held in Paris in August next. Their title, when translated into long-system French, will be about as imposing in length as the Eiffel Tower, but they will ably and creditably represent all there really is of the association.

Discussion of the question of uniform weight for flour-sacks took up some time. Mr. B. R. Sparks, of Alton, Ill., made a telling speech on that point. He asserts that there is a growing evil in this direction, and that the millers who put up honest packages of flour are getting the worst of it. He charged the trouble to the varying state laws and urged the adoption of a general law by Congress to control the weight of flour packages. He suggested the adoption of resolutions asking Congress to pass a suitable law determining the weights of sacks of flour. The chairman selected Homer Baldwin, of Youngstown, O., and Messrs. Sparks and Kern a committee on resolutions, to report at the Wednesday session.

The subject of "Cash Sales" was discussed informally, and Messrs. A. C. Brazier, G. F. Tileston and B. R. Sparks were appointed a committee to report a plan for the establishment of a central bureau, with a manager and secretary. This completed the business of the afternoon, and the convention was adjourned till 9:30 a. m. Wednesday.

The convention ended with the Wednesday forenoon session, which was attended by still fewer millers than the Tuesday afternoon session. At the opening of the last session Mr. Bain offered a resolution of respect for the late Edward Sanderson. On motion of Alex. H. Smith the convention by a standing vote adopted the resolution, which was ordered engrossed. Resolutions of respect were adopted for the late Edw. P. Allis, of Milwaukee, and the late Nicholas Elles, of Evansville, Ind., both of whom died since the Buffalo convention of June, 1888.

On behalf of the special committee appointed to suggest changes in the forms of bills of lading, A. A. Freeman reported that the committee had decided to make no changes in the bill proposed and presented by the executive committee at the Buffalo convention last year. Mr. Freeman stated that the members of the executive committee are unanimous in their determination to push this matter until they have secured the adoption of a new and fair bill of lading. H. C. Yaeger, of the committee appointed to consider the question of employing a general secretary, whose duty would be to look after litigation for the members, reported the following resolutions:

*Resolved*, That this association employ a secretary who shall give his entire time and attention to the business of the association, and who shall be subject in all matters to the advice and instructions of the executive committee. One of the objects and work of the secretary shall be to take charge of complaints from members of the association in good standing of unjust transactions on the part of the flour buyers, and of unreasonable delays in the transit of flour to destination.

*Resolved*, That a member making a complaint should present his grievances or contract of sale, clearly set forth, to warrant the expectation that the executive committee will entertain it. It should be the aim of the association to avoid litigation and resort to it only after all other efforts have failed to sustain the rights of its members.

In discussing these resolutions Mr. Freeman asserted that, if the association would take hold of the matter in a way to show that it really meant to fight with the tricky customers, the membership of the association would grow and the members would manifest more interest. He urged the adoption of the resolutions. The question of salary for the proposed litigation secretary was discussed. Mr. Yaeger thought a suitable man could be engaged at a salary of \$2,500 a year. Mr. Bain explained the plan, somewhat similar to the one proposed by the committee, which the millers of St. Louis had adopted. They keep a "black book," in which is recorded the name of every purchaser of flour who breaks a contract. Mr. Bain said that it must be admitted that the St. Louis experience proved that all buyers are not dishonest, and all millers are not honest. Mr. Baldwin and Mr. Sparks endorsed the resolutions reported by the committee. Secretary Seamans asserted that the services of an attorney would not be required very often, as a good secretary would be able to settle most disputed cases, and he said: "But when it becomes necessary to take a case into court, the ablest and the meanest lawyer in the country should be employed." The convention adopted the report.

The committee on nominations of officers reported the following ticket: President, F. L. Greenleaf, Minneapolis; first vice-president, A. R. James, Buffalo; second vice-president, William Sanderson, Milwaukee; third vice-president, George H. Plant, St. Louis. Some surprise at the nomination of Mr. Greenleaf for president was expressed, as it had generally been thought that Mr. James would be the presidential nominee. The officers named were declared elected.

Some personal politics crept into the convention. Mr. Bain, of St. Louis, is one of 200 or 300 candidates for the United States consulship at Glasgow, Scotland, and the convention adopted a letter to President Harrison, prepared by John J. Washburn, of Minneapolis, tendering the congratulations of the association and cordially endorsing Mr. Bain's candidacy for the Glasgow consulship. The effect of this letter on President Harrison will be waited for with interest by those who remember the Minneapolis free-trade-in-wheat resolution presented to Congress by the Buffalo convention in 1888. All the signatures of the visiting millers would hardly make an imposing array in the eyes of the President, who is accustomed to the sight of endorsing documents signed by thousands of endorsers of candidates, and it is to be hoped that Mr. Bain has some more potential backing than the Washburn letter.

The sub-executive committee reported that the Knickerbocker Company, of Jackson, Mich., have announced their decision to issue licenses to all members of the Millers' National Association now illegally using their "Cyclone" dust-collector, at a charge of \$25 for each machine used. The company granted the members 60 days in which to take out their licenses, and it is understood that suits are to be commenced against those who fail or refuse to take out the licenses and pay for them. When this report of the committee was ended, R. L. Downton, of St. Louis, asked permission to speak on the subject. He announced that the Climax Dust Collector Company, of which he is the manager, have recently instituted suit against the Knickerbocker Company for infringement, and he advised the members not to be in too much of a hurry to pay the \$25 license fees asked by that company.

No more business being presented for consideration, the convention adjourned sine die, leaving the date and place of the annual convention of 1890 unsettled. At noon the visitors were taken on a drive about the city, stopping at The Soldiers' Home for lunch. In the evening they attended the opera at Schlitz Park. It was announced on Monday that the carriage accommodations provided would be ample for 400 visitors, but the procession was not so large as that. The meeting was seen and acknowledged to be a flat failure, not only in attendance, but also in the character of the transactions and the failure to bring any question to a definite settlement. Some of the members explain the small attendance by saying that "the cause is a misunderstanding that arose over a matter of business at the last meeting." It was

said that President Seybt had remained away from the convention on that account. The "misunderstanding" referred to is probably connected with the "bungled resolutions" at the Buffalo convention. Whatever the cause, it was powerful in making the Milwaukee convention a flat failure in every way.

#### CONVENTION NOTES.

The milling-machinery manufacturers and their agents and representatives outnumbered the millers in attendance. There must have been slim foraging for some of them.

The word "trust" was not even mentioned in Milwaukee during the convention.

After Buffalo, Milwaukee! After Milwaukee—what?

No banquet, no official organ, no really "fluid" oratory, no wailing Prognosticator Prime in the doleful dumps over the dismal crop prospects, no quarrel, no enthusiasm, no new ideas advanced, no old ideas carried out, no attendance to speak of! It was one negative throughout.

It was the great opportunity of the life of Colonel Cawker, editor of "The United States Miller and The Milling Engineer," of Milwaukee, Wis. How has he improved the opportunity? Time will tell.

Only a few of the milling journals were represented at the gathering.

Probably the purblind managers of the Millers' National Association will be able, in the course of a million years, at their present rate of progress, to understand that all their efforts to create a thoroughly representative body are vain, simply because they are working in the wrong direction. The flour exporters should take the skeleton of the association, articulate the bones, wire the joints securely, and put on the frame a layer of exporters' material, and then they should adopt a new name in accordance with their character and aims, and drop the present inappropriate title.

Bran, bran, bran! Minneapolis seems to run all to bran. One year that city doses the convention with "Bran as Hog Feed," another year with dry tests of some mysterious sort, and a third year with "Compressed Bran." It is too, too much bran. Minneapolis will keep on with this bran business until the justifiable cry of "Chestnuts" will greet every Minneapolis man who is put forward to bore the convention.

There was in Milwaukee a noticeable absence of the boom, puff, brag, blow, bluster and bulldozing of the ex-official organ stripe so unpleasantly remembered by those who attended the Buffalo meeting in 1888. This time the whole concern was not run in the interest of a northwestern squealer and self flattering ignoramus.

The selection of officers of the association for the ensuing year occasioned some surprise. Buffalo was thought to be booked for the presidency, but at the last moment the modest Minneapolis spirit re-asserted itself and Buffalo took second place on the list.

"Will I ever attend another meeting of the National Association?" said one miller, "Well, that depends. Perhaps it would be well first to settle the question whether there will ever be another meeting to attend. Settle that for me, young fellow, and I'll give you a plain yes or no!"

It begins to look like enforced reorganization or inevitable dissolution for the association. Which shall it be?

Many, or rather some, of the visitors agreed that the past year has not been a good one for millers in the United States. Most of them realize the mistake that was made in under-estimating the wheat-crop of 1888 and in hastening to grind more than the markets could absorb, all of which resulted in pushing up wheat prices, in pushing down flour prices, and in disorganizing the business generally.

The convention has helped nothing. It has probably hurt the association by exhibiting its pitiful weakness.

After all the work of the past year in forming associations and in attempting to lift them bodily into the national organization, what a disappointing outcome! Another year of similar coddling will kill it entirely.

Big predictions did not bring the millers to the convention. The managers should have hired Prognosticator Prime to bear the attendance in one of his prophecies, and that would probably have bulled it.

Last year the association went out of its way to insult the men whom it invited to present practical milling papers, and this year the practical millers retaliated by staying away from the convention in great numbers. Time evens up all things.

Said one visitor: "Well, I swow! If that confounded Abernathey Short System has n't struck even the National Association! It is a short-system gathering and no mistake!"

#### THE AVERY STAMPING COMPANY.

The Avery Stamping Company, of Cleveland, Ohio, successors to the Avery Elevator Bucket Company, of the same city, announce that they have lately purchased of W. H. Caldwell, of Chicago, Ill., the patentee and manufacturer of the celebrated Caldwell steel screw conveyer, his patents for corrugated elevator-buckets and other sheet-metal goods whereby any article manufactured from sheet-metal may be made stiff and rigid, doing away with cross braces, that are found in the old-style elevator-buckets and interfere so with the filling and emptying. This corrugation will be a great benefit and improvement, especially in elevator-buckets, as ear corn, slag or any rough or ragged material can be dipped up easily, with less friction on a full load, as there are no braces to catch or seams to give way, that cause spilling material down the back leg. As all elevator men well know, braces retard the emptying of elevator-buckets. This bucket will make a great saving in time, labor and expense, while doing twice as much work as buckets heretofore used. For large elevators, as in Chicago, Buffalo, Duluth and many other principal grain-ports, where speed and quick work are especially desired, this new bucket will take the place of the old style now used. They will be made of steel, perfectly seamless, without rivets, solder or seams, any parts of which are so liable to give away. Another great feature is that they will not be expensive in price and will outwork three of the ordinary buckets now used. The sizes will be 10x5½; 11x6; 12x6½; 14x6½; 16x6½; 18x7 and 20x7, made of suitable gauges of steel, giving them with the corrugation the full strength and stiffness desired. These buckets will be considerably lighter than the common ones now used, while they will be much stronger, and parties interested in improving their mills and elevators, desiring samples and prices, can have the same by applying to the Avery Stamping Company, or



to any first-class mill-furnisher or mill-supply house, as these goods have a world-wide reputation and every mill-furnisher can furnish them. Freight rates on these buckets are fourth-class, while other makes are first-class, a great saving to the buyer. The makers say: "Please bear in mind that we have the only patents ever granted in the world for seamless, drawn, stamped, pressed and forged elevator-buckets, also the only patents ever granted for corrugating buckets, troughs, etc. On small sizes of our elevator-buckets, taking the weight, boxing, cartage and freight into consideration, it is advisable to ship by express as far as possible to secure prompt receipt of goods."

#### POINTS IN MILLING.

PROBABLY the one idea that is most important in flour-making is also the least thoroughly understood. Reference is made here to the idea of treating materials of different sizes and kinds by themselves, and the influence of that idea should not be ignored, as it acts all along the line, from the grain at the receiving door to the packed product at the shipping door. Generally the miller who is not forced, by the complaint of his customers or the competition of his neighbors, to grind carefully and well, will grind carelessly and badly, and such millers generally ignore all rules that insure an improvement in yield and quality. On the other hand, those millers who propose to do as well as possible, for both themselves and their customers, will recognize the importance and the necessity of handling their grain so that it shall yield them the most money. Millers of the latter class are generally making a study of the grading of materials for treatment, but there are hundreds of mills in which the A B C of this essential branch is yet to be learned. Almost every day I find some man struggling with the problem of making one roll adjustment or one size of roll corrugation do the work of two or three adjustments or

sizes. Not yet have I found the man who has solved that problem by working away at it in defiance of all the laws of common-sense.

IN every given quantity of wheat received in a mill there are two general classes of berries, the large and the small. The large berries will generally be found to comprise about three-fourths of the whole, and the balance will be so much smaller on the average that they will require different treatment from that given to the larger berries. The grader should be called into service to divide these classes, and the larger grains should be treated on coarsely-fluted first-break rolls, while a finer-fluted first-break roll should treat the finer grains.

A THREE-HIGH roller-mill may be manipulated so as to break and grade at the same time on the first-break. This is done by adjusting the top and middle rolls properly for the coarsest grains, and the middle and bottom rolls for the finest grains. This manipulation demands exceedingly accurate adjustment, and it causes the rolls to grade the grain. The top rolls will crush only the coarse wheat, and the bottom rolls will crush the fine. Should the bottom rolls be set too closely, the wheat crushed by the top and middle rolls would again be crushed, a result not to be allowed. In any event, whether the grader be used or the device of grading by the rolls be employed, the different sizes should be provided for.

PROPER treatment of the material at the start implies proper treatment all along the line. The miller who has studied the benefit of grading grain at the start will certainly be led to continue the grading process at every point possible. It is not possible to bring a single reasonable objection against the practice of bestowing varied treatment on materials of varying sizes. The successful mills generally follow out this idea thoroughly, and it is this practice which enables them to make large average yields and to secure a valuable homogeneity of product.

VIOLENT treatment of the grain at any step in flour-making entails damage and loss. Even in the cleaning process violence will make trouble. Some recent grain-cleaning inventions are total failures at the start, as they operate on the violent plan, breaking, splitting and mangling the grain and exposing the floury portions to rude contact with grit, metal or bristles under heavy pressure and at rapid speed. Not long ago I saw a "sample of wheat cleaned" by a recently invented contraption. The inventor says it was "cleaned," and it was "cleaned," with a vengeance. Not a solitary grain in the sample had escaped serious damage. There were some whole grains, not cleaned at all. There were three-quarter grains, half grains, quarter grains, eighth grains, and other grains in varying fractional portions. The "sample" looked as though it might have been through a sort of first-break in a Zuni or Mexican Indian mortar. Every handling dusted off portions of flour from the mangled grains, and the loss of valuable material in this case must have included at least 20 per cent. of the flour. During the past year I have come across three or four "grain-cleaning" contraptions of this violent sort. Naturally the fraternity hear but little of such wild machines. No manufacturer will handle them. No sane miller will employ them. The inventors themselves are the only ones who believe in their efficacy.

THE reports of large yields are very rare nowadays in mills that are grinding the wheat of 1888. Those intelligent millers, who live in New York City and grind out statements for market journals, are not succeeding in getting 95-percent. yields of flour out of the wheat of last year. Last summer certain of those eminent New York flour-millers, who don't know a wheat-field from a cucumber patch and who don't know a flour-mill from a feather foundry, informed the astonished millers that, according to the popular bucket-shop gamblers' idea of the capacity of wheat grain, many mills were making nearly 100 per cent. of

flour from wheat. The rattle-brained gamblers and scribblers heard something drop as soon as their crazy statement was published, and they have subsided.

HOLDERS of 1888 wheat will do well to get rid of it before the new crop comes into the market. Millers will "switch" off the old onto the new wheat at the earliest possible date, and when once the new is available the old will be left absolutely untouched. Now and then I find a miller who says he is "almost willing to shut down and wait for the new wheat," and who would do so but for the fear of losing customers.

THE insanely bitter attacks recently made by the ex-official organ of the National Association upon that organization justify all the protests made by the other milling journals when the organ was conferred upon the Minneapolis gall-bag. It must now be plain to even the purblind managers of the National Association that the Minneapolis influence is bound to rule or ruin. It must also be plain to them that the "organ" is quite as powerless, either to hurt or help the association, as it was said to be when, against all the dictates of common-sense and all the rules of equity, it was selected to become the mouthpiece of that body. Minneapolis hysteria is not the food upon which any organization can reasonably be expected to thrive. Thin Minneapolis gabble is no longer believed to be gold for millers in other centers. It is well. The association managers have probably learned something in the past year.

OUR esteemed Toronto, Ontario, cotemporary comes to us with a changed title, having dropped the word "Dominion" and substituted the word "Electrical" in its heading. The full name now is "The Electrical, Mechanical and Milling News." The reason alleged for the change is to represent more fully the electrical interests of Canada. The field is a wide one, and we wish our neighbor success.

AMONG the new advertisements in this number of THE MILLING WORLD is that of the National Pulley Covering Company, of Baltimore, Md., to which special attention is called. Their specialty is of general interest to the trade, and all users of machinery are directly concerned in it. Send to them for their latest illustrated catalogues and all desired information.

## SPECIAL NOTICES.

### LIBERAL OFFER.

With a view of increasing our subscription list, we will send a copy of R. J. Abernathy's new book, "The True Short System" (Price \$2.00) and "The Milling World" for one year at the very low price of Two Dollars. Renewal will be treated same way. This offer will only continue for a limited time. Now is your chance. Send in your subscriptions at once.

Address,  
THE MILLING WORLD, BUFFALO, N. Y.

### BOLTING CLOTH.

Do not order your cloth until you have conferred with us. It will pay you, both in point of quality and price. We are prepared with special facilities for this work. Write us before you order.

CASE MANUFACTURING CO..

Columbus, Ohio.

Office and Factory, 5th Street, north of Naughton.

## TOLEDO MILL PICKS AND STONE TOOL MFG. CO.

Manufacturer

and Dresser of

## MILL PICKS.

Made of the best double-refined English cast steel. All work guaranteed. For terms and warranty, address, GEO. W. HEARTLEY, No. 297 St. Clair Street, Toledo, Ohio. Send for Circular.

N. B.—All Mill Picks ground and ready for use (both old and new) before leaving the shop. No time and money lost grinding rough and newly dressed Picks. All come to hand ready for use.

ALSO MANUFACTURERS OF  
Shafting, Pulleys, Hangers, Coupling, Machine and  
Jobbing, Etc., Etc.



**MICA AS AN INSULATOR.**—Comparisons between glass and mica show that even at high temperatures the latter is the better insulator.

**TO CLEANSE FILES.**—To cleanse and re-sharpen a file which has become clogged, a mechanic recommends removing grease by means of a solution of potash and water, and then dipping in a solution of 8 parts water, 3 parts sulphuric acid and one part nitric acid. The files should afterwards be washed, dried and oiled.

## GENERAL NOTES.

THE human race is increasing 30,000,000 yearly.

COLORADO is said to have 1,000 women stock growers.

CHILI has decided to put a stop to Chinese immigration.

THE present permanent population of Oklahoma is about 20,000.

THERE is plenty of room on earth. Allowing 5 acres for each inhabitant, Europe has room for 115,000,000 more people, Africa for 1,336,000,000, Asia for 1,402,000,000, Oceanica for 515,000,000 and America for 2,000,000,000.

### ORNAMENTATION AND DURABILITY.

In considering this subject we will probably strike some "snags," but as we are "snag-proof" we will proceed. Every one will acknowledge that finish in mill-wright work is pleasing to the eye. Now we really do not advocate the idea of transforming a mill-wright into a cabinet-maker, yet we have struck but few jobs that were too nice. It is a matter of taste in having a finely polished hardwood finish in a mill, and is to be better judged by contrast. To convey some idea of how it appears to us, we will say that in traveling around the country we got into a mill, which was of the neatest we every saw; for, though not a stick in it but pine, every piece of work said plainly: "A mechanic put me up." In building this mill there was no disposition to fritter away time and money working walnut, cherry and other fine woods, but what there was, was neat; every joint was a joint; there was no shellac, varnish or paint; the work stood out in natural colors and was beautiful to look at. The next mill we chanced to go to was a large one just completed and started. Every thing was spick span clean, wood work all shellacked, black walnut trimmings in profusion, brass and blue-head screws, and every thing to beautify the work. But the joints! Such inconsistencies! "You could not put a hare in, but a hare's leg would almost fall through" many of them. Now this feature completely nullified all attempts at ornamentation and durability. With open joints at the outset, imagine what that mill would be in six months! Hence, we believe that as regards durability of mill-wright work, more depends upon the men

putting it up than on the amount of trimmings. We are no lover of the fancy in this respect, and beyond plain beadings and nosings, with appropriate chamfer, we do not advise any outlay for ornamentation. A mechanic will do up a job as neatly as can be desired and not go beyond pine for ornamentation.—*J. A. Lawrie.*

AN esteemed cotemporary rises to remark that somebody displays undue heat under the collar. It may not be amiss to remind that particular esteemed cotemporary that the display of heat under the collar is quite as pleasant and profitable a spectacle as the display of hydrocephalic magnitude too pronounced above the collar. Disturbances below the collar are not necessarily averse to the survival of the fittest, but when the trouble focuses above the collar the case is desperate. Take "Safe Cure."

### DOUBTFUL MILLING POEMS.

#### ALL'S WELL.

No matter how low the temperature,  
No matter how wet the rain,  
It's death to the bugs  
With their ravenous mugs,  
And good for the growing grain.  
And the three-break mills  
With their low-cost bills,  
Now daily gaining fame,  
Though they have less frills  
Than the six-break mills,  
Will get there just the same!

!!!!

They hustled and they hustled  
With grips half packed,  
A score of anxious agents  
After one contract.  
They flew across the country  
Ere rise of sun  
To reach the needy miller  
Before

Smith Caught On.

They never stopped for breakfast,  
Ignored the bar,  
And skurried swiftly onward  
To seat of war.  
Like a hogshead of molasses  
With flies upon,  
They swarmed about the miller  
Ere

Smith Caught On.

They figured and they argued,  
And teeth were gnashed  
As each other fellow's prices  
Were cut and slashed.  
The telegrams flew homeward—  
"We must come down,  
Or they'll form a combination to  
Help

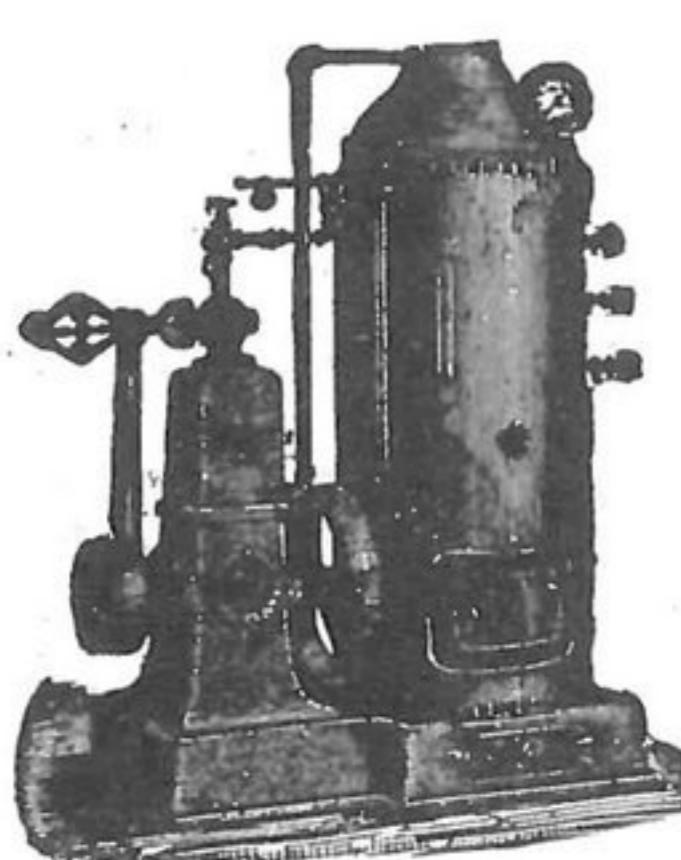
Smith Catch On."

Each agent vowed he make the other  
Chaps turn faint,  
And the estimates and terms they made  
Would shock a saint.  
With confidence they went to rest  
When day was done.

\* \* \* \* \* \* \* \* \*  
The morning broke, and —  
? — — — !!!!! — ! ! ! — !!!!!  
\* \* \* \* \* \* \* \* \*

Smith Caught On.

Kansas City "Modern Miller."



**DURABLE,  
ECONOMICAL,  
NOISELESS,  
SELF-LUBRI-  
CATING,  
LOW-PRICED.**

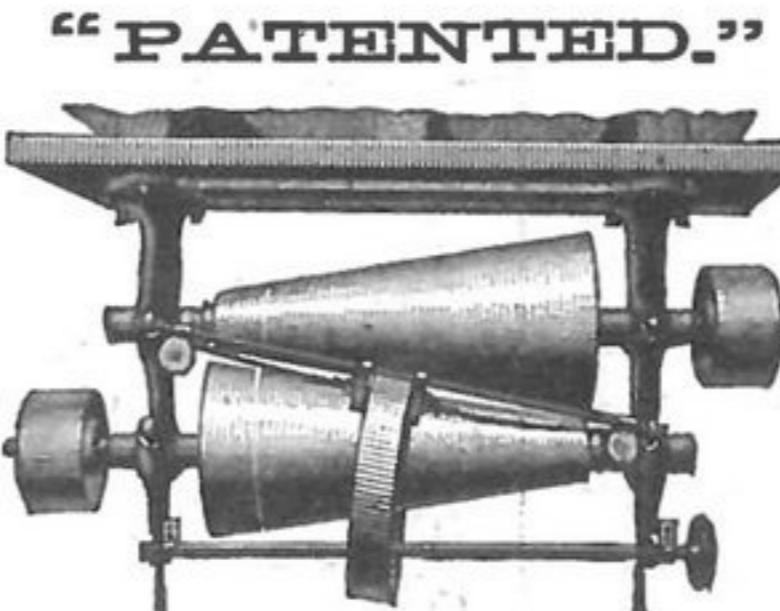
One and two Cylinder Engines, with vertical or horizontal boilers, are running 2 years without using a wrench on them.

1 to 15 H. P.

SEND FOR CIRCULAR  
TO

**CASTLE ENGINE WORKS**  
INDIANAPOLIS, IND.

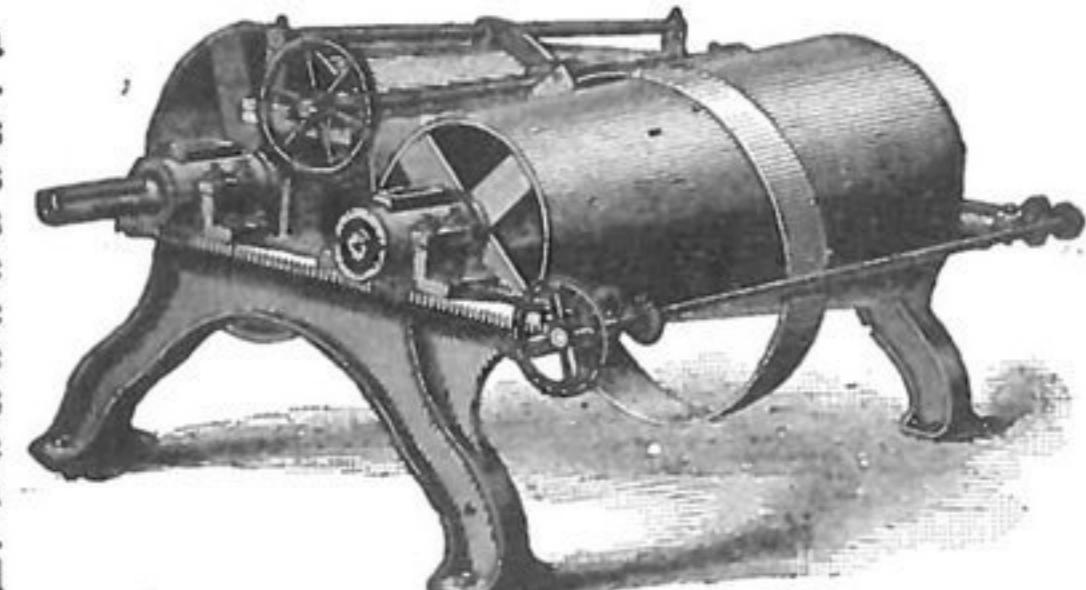
## THE EVANS FRICTION CONE & FRICTIONAL GEARING



"PATENTED."

fluctuating. All sizes made from  $\frac{1}{2}$  Horse Power to 50 Horse Power. SEND FOR ILLUSTRATED

CATALOGUE.



**EVANS FRICTION CONE CO., 85 Water St., BOSTON.**

**COMPOUND** Condensing or Non-Condensing.  
16 SIZES, 5 to 500 H.P.  
Not yet equaled by any form of Engine for  
**HIGH FUEL DUTY AND SIMPLICITY.**

**STANDARD** 13 Sizes in Stock.  
5 to 250 H.P.  
3000 in use in all parts of the Civilized World.

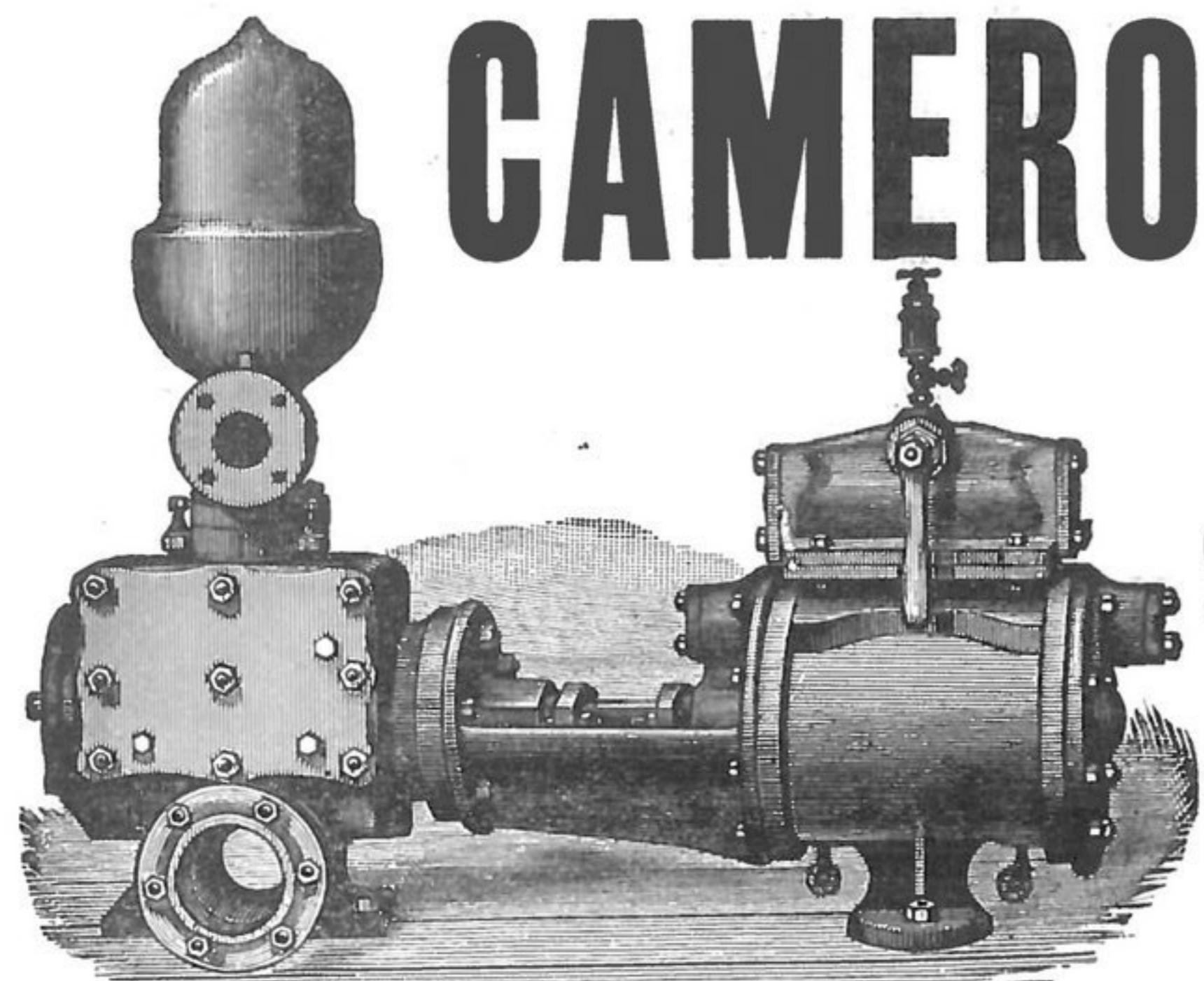
**JUNIOR** 6 Sizes in Stock,  
5 to 50 H.P.  
An Automatic Engine cheaper than a Slide Valve.  
WELL BUILT. ECONOMICAL. RELIABLE.  
Over 300 Sold the First Year.  
All the above built strictly to Gauge with  
INTERCHANGEABLE PARTS.  
REPAIRS CARRIED IN STOCK.  
SEND FOR ILLUSTRATED CATALOGUES.

# WESTINGHOUSE ENGINES

The WESTINGHOUSE Machine Co.  
PITTSBURGH, PA. U.S.A.

## SELLING DEPARTMENT IN THE UNITED STATES.

New York,	17 Cortlandt St.	Westinghouse, Hathaway Building, Westinghouse Build'g, Church, Kerr & Co.
Boston,	156, 158 Lake St.	
Pittsburgh,	608 Chestnut St. M. R. Muckle, Jr. & Co.	
Chicago,	302, 304 Washington Av.	
Philadelphia,	312 Union Avenue,	
St. Louis,	1330 Seventeenth St.	
Kansas City,	1619 Capitol Avenue, F. C. Ayer.	
Denver,	Geo. M. Dilley & Sons.	
Omaha,	Salt Lake City, 259 S. Main St. Utah & Montana.	
Pine Bluffs, Ark.	Butte, Mont. L. Granite St. Machinery Co.	
San Francisco,	21, 23 Fremont Street, Parke & Lacy Co.	
Portland, Or.	33, 35 N. Front St. Parke & Lacy Mch. Co.	
Charlotte, N. C.	36 College St. The D. A. Tompkins Co.	
Atlanta, Ga.	45 S. Prior St.	
Dallas, Tex.	Keating Imp. & Machine Co.	
Chattanooga, Tenn.,	G. E. James & Co.	



# CAMERON STEAM PUMP

THE STANDARD OF EXCELLENCE.

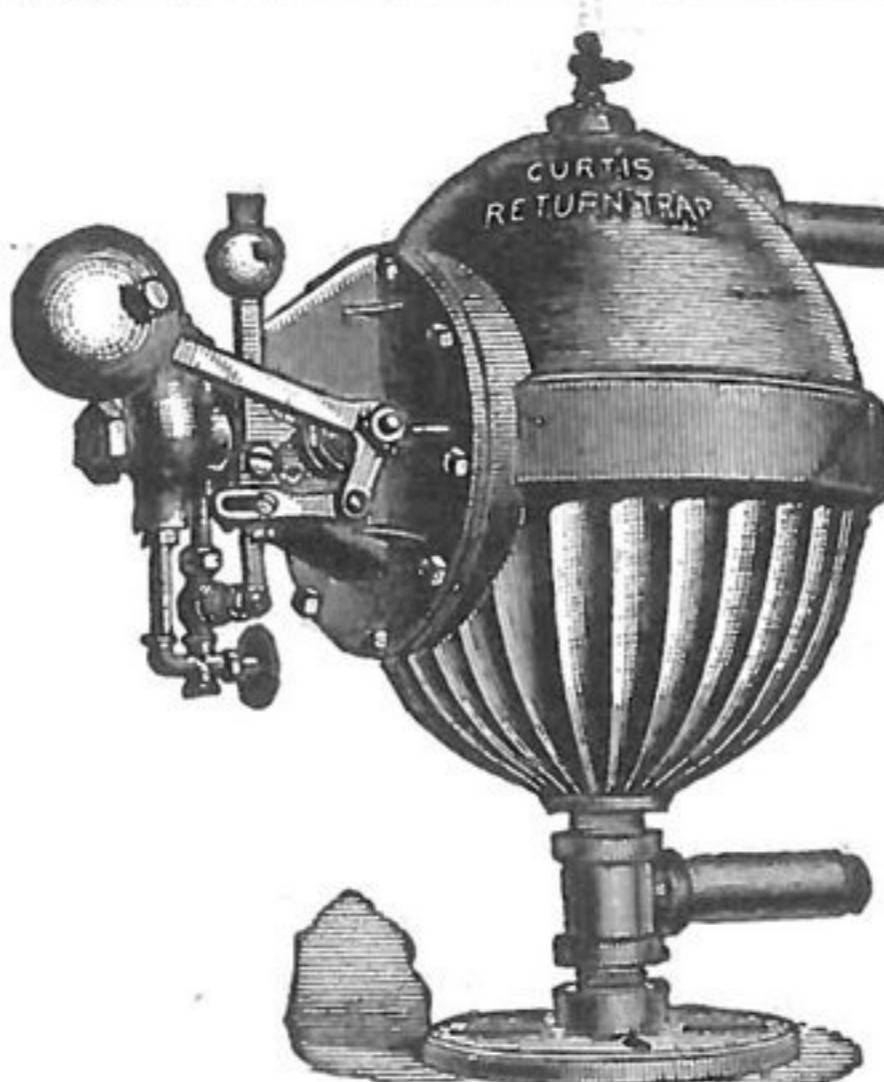
*SIMPLE! COMPACT! DURABLE!  
"NO OUTSIDE VALVE GEAR."*

Steam, Air & Vacuum Pumps in Every Variety

FOR ILLUSTRATED CATALOGUE ADDRESS

**THE A.S. CAMERON STEAM PUMP WORKS**

Foot of East 23d Street. - New York.



# THE CURTIS

PATENT RETURN STEAM TRAP.

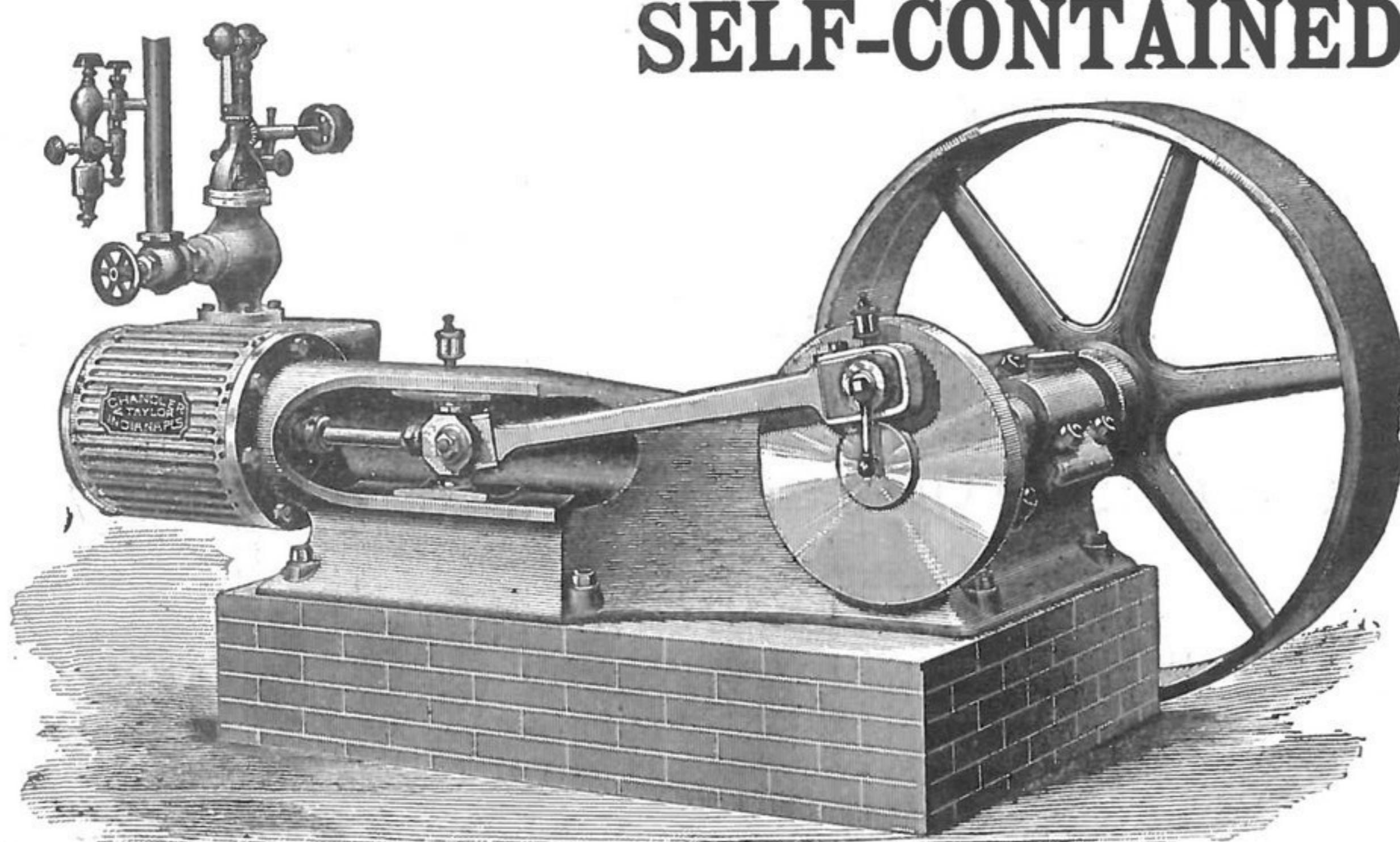
IT is noiseless, positive, rapid, will return all condensation back into the boiler, and works equally well in connection with reduced pressure or exhaust steam, also when the return is below the water line of the boiler.

THE CURTIS REGULATOR COMPANY,  
No. 74 BEVERLY ST., BOSTON, MASS.

### GENERAL AGENCIES.

NEW YORK, 109 Liberty st.  
PHILADELPHIA, 2035 N. Front st.  
MINNEAPOLIS, 210 S. Third st.

CHICAGO, 218 Lake st.  
ST. LOUIS, 511 WALNUT ST.  
NEW ORLEANS, 21 Union st.



# SELF-CONTAINED STEAM ENGINES

Stationary or  
Semi-Portable.

High Standard Maintained.  
Prices Greatly Reduced.  
*WRITE FOR NEW ILLUSTRATED  
CATALOGUE NO. 32.*

**Chandler & Taylor Co.**  
Indianapolis, Ind.  
Engines, Saw-Mills and Drain Tile  
Machinery a Specialty.

# NOTES AND NEWS

Behnke Bros., Bullion, Wis., build a flour-mill.  
The Listman Mill Co., LaCrosse, Wis., rebuild.  
Runkle Bros., Mt. Airy, Md., build an elevator.  
J. Williams, Bettel, N. Y., has built a grist-mill.  
W. T. Sowden, Emporia, Kan., remodels to rolls.  
Smith & Dunn, Cog Hill, Tenn., remodel to rolls.  
I. Good, Sparta, Tenn., project a \$6,000 flour-mill.  
J. R. Yost, Hay's City, Kan., enlarges his grist-mill.  
J. Earl, grain elevator, Schoolcraft, Mich., assigned.  
Bell Bros.' flour-mill, Bell's Mills, Md., flood-wrecked.  
L. Miller's flour-mill, Burnt Mills, Md., flood-wrecked.  
N. Engi, Atwater, Minn., builds a 75-barrel flour-mill.  
Hutton & Carr, Wingham, Ont., Can., remodel to rolls.  
R. Colvin, miller, Sulphur Springs, N. C., quit business.  
O. Bugbee's grist-mill, Conewango Valley, N. Y., burned.  
B. F. Haws & Son's grist-mill, Ellicott City, Md., flooded.  
J. P. McAndrews, Carthage, Mo., wants roller machinery.  
Dougherty's flour-mill, Weverton, Md., lost \$10,000 by flood.  
N. Runkle's feed-mill, near Findlay, O., burned; loss \$4,000.  
D. Amen & Son, millers, Francisco, Va., sold to G. W. Webb.  
The Wichita Falls, Tex., Roller Mill Co. want new machinery.  
H. L. Lovering & Co., Coldwater, Ont., Can., remodel to rolls.  
The Chattanooga, Tenn., Flouring Mill Co. improve their plant.  
Clark & Amos, millers, Mann's Choice, Pa., now John H. Clark.  
W. S. Holland's flour-mill, near Brister, Ark., burned; loss \$5,000.  
G. M. Bowers' flour-mill, Martinsburg, W. Va., damaged by flood.  
J. & R. B. Haven, Washington, D. C., add corn-meal machinery.  
E. L. Pierce's Wabash Mills, Philadelphia, Pa., sold by the Sheriff.  
J. W. Poole's corn and flour-mill, Petersburg, Va., lost \$5,000 by flood.  
J. Schoonover's grist-mill, near Pocahontas, Ark., burned; loss \$5,000.  
W. C. Darly's flour-mill, Weverton, Md., lost \$7,000 by flood; rebuilding.  
The Blaker Milling Co., Pleasanton, Kan., want wheat-cleaning machine.  
Gaylord & Jones' elevator, Blair, Neb., burned; loss \$8,000; insurance \$4,000.  
The Posey-Cheesbro Milling & Elevator Co., Whitewater, Wis., dissolved.  
J. A. Hammersley's grist-mill, Little Georgetown, W. Va., flood-wrecked.  
Treat & Co.'s elevator and other property, Marshalltown, Ia., burned; loss \$200,000.  
The Bridgewater flour-mills and cooper shops, Fredericksburg, Va., flood-wrecked.  
Rogan's elevator, Arcadia, Neb., burned; loss \$6,000; insurance \$2,500; fire incendiary.  
B. Benshoff's grist-mill and Pearl & Co.'s flour-mill, Johnstown, Pa., wrecked by flood.  
N. R. Shephard's grist-mill, Marcellus, N. Y., burned; loss \$20,000; insurance \$10,000.  
The Nebraska Millers' State Association will hold a meeting at Omaha, Neb., June 18 and 19.  
Statesville, N. C., men are forming an \$8,000 stock company to build and operate a flour-mill.  
The Gambrill Mfg. Co., Orange Grove, Md., lost \$10,000 by flood damage to their flouring-mill.  
J. S. Orr and others, Rayner, Tex., incorporated the Rayner Mill & Gin Co., capital \$3,000, to build a grist-mill and gin.  
The North Texas Mill & Elevator Co., McKinney, Tex., have built a 300-barrel corn-mill and a 150,000-bushel grain elevator.

C. G. Meyer and others, Nashville, Ill., incorporated the Farmers' Mutual Benefit Association Milling Co., capital stock \$12,500.

The Cumberland Valley R. R. Co., Chambersburg, Pa., will build one grain elevators at Winchester, Va., and another at Martinsburg, W. Va.

The old Darracott mill, Hanover, Va., was flood-wrecked in June. This was the mill to which the famous Henry Clay used to go when a boy.

The Minneapolis mills are grinding about their usual amount of wheat. Their output last week was 100,110 barrels. They report a better state of affairs so far as orders are concerned, but prices are very irregular. They have plenty grain.

The first lot of new California wheat of the crop of 1889 was received in San Francisco on May 24, the earliest arrival of new wheat in the history of the trade on that coast. The consignment embraced 195 sacks and sold at \$1.37½ per cental. The first receipt last year was on June 15 and in 1887 on June 11.

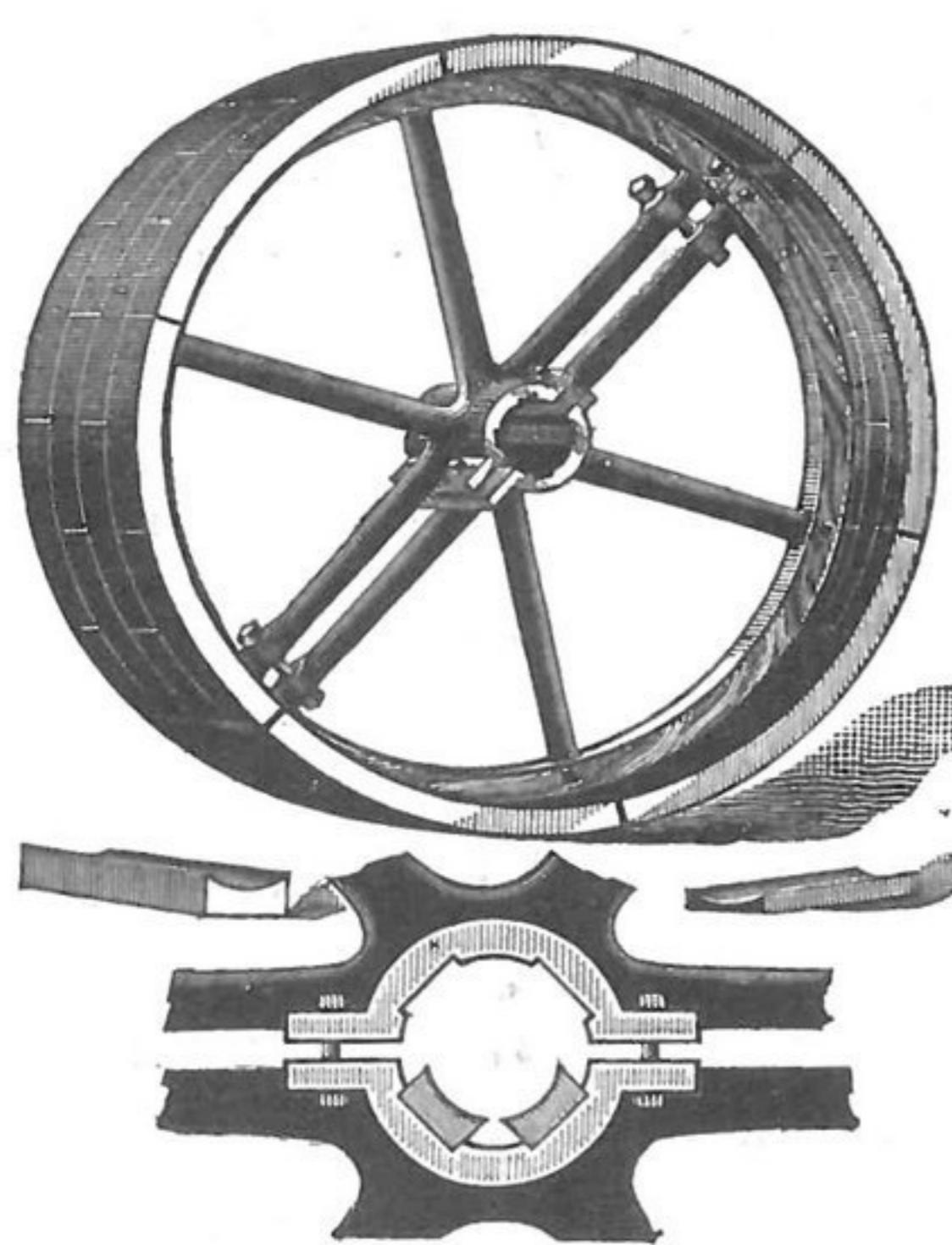
The Reliance Gauge Co., of Cleveland, O., recently received its fourth order from the Meriden Britannia Company, of Meriden, Conn., for Reliance Safety Water Columns. The Meriden Co. first tried these safeguards about two years ago. These repeated orders are unquestionable testimonials of the merit of the goods.

Among the recent converts to the "Patent Friction Covering," now being manufactured by the National Pulley Covering Co., of Baltimore, Md., are: Owosso Tool Co., Owosso, Mich.; H. P. Duscher Co., Hamilton, Ohio; Merrimac Mfg. Co., Scranton, Pa.; Norfolk Knitting Mills, Norfolk, Va.; Coonell Mfg. Co., Ann Arbor, Mich.; Wardwell Needle Works, Lake Village, N. H.; R. C. Dunn & Bros., Goldsboro, Pa.; Lindsey Bros., Middletown, N. Y.; W. S. Conger, Litchfield, Mich. Their business in one week recently came from fifteen widely separated states and goes to show how wide-spread the use of this "covering" has become.

The Reliance Gauge Co., of Cleveland, O., is making quite a good many water-columns of finished brass for establishments which believe in equipping the boiler-room as well as the engine-room in first-class shape. Among the recent orders for these is one from the Overman Wheel Co., of Boston, Mass., whose plant at Chicopee Falls will be an exceptionally fine one. The Columns are 30 inches long and 6 inches in diameter at the bosses and are of the combined high and low water alarm pattern, with the alarm lines 8 inches apart. They are duplicates of the largest finished brass column exhibited at the Chicago Electrical Exhibition and will be put up in pairs between the boilers, giving an exceptionally fine appearance.

## BOOKS AND PAMPHLETS.

THE HEIGHT OF WOOD-ENGRAVING.—Mr. W. J. Stillman, the art critic, writes that M. Hebert, Director of the Academie Francaise at Rome, "one of the most thoughtful of modern French painters, and perhaps the best representative still living of the great poetic French school of art," says of Mr. Cole's engravings now appearing in the *Century*, that "he had never seen such work on wood, and did not suppose wood-engraving to be capable of it." As was stated in the announcement of this series, the appearance of the engravings is in chronological order. Specimens of the work of such pre-Raphaelites as Cimabue, Giotta, Spinello and others have already been shown; and while the reproductions of the paintings of these artists are of the highest value to art-students, the general public will be more interested in the later work, which is to include admirable specimens of the art of Perugino, Leonardo, Titian, Michael Angelo, Raphael, Paul Veronese, Correggio, Tintoretto and many other well-known names, the masters of the world's art. Leonardo's "Mona Lisa" and "The Jeweler," Titian's "La Bella," "The Man with the Gloves" and "The Entombment," Rembrandt's "Supper at Emmaus," Velasquez's "L'Infante Marguerite" and Albertinelli's "The Salutation" are among the engravings to come. It is said that this series of pictures is being received with great interest in Italy where are most of the originals which Mr. Cole has reproduced. All of his pictures are engraved directly from the originals, Mr. Cole doing his work in the galleries or churches in front of the paintings; and the great value of the series is in the absolutely faithful rendering which the engraver has given of the artist's work.



## BIRD & CRANE MFG. CO., KALAMAZOO, MICH.

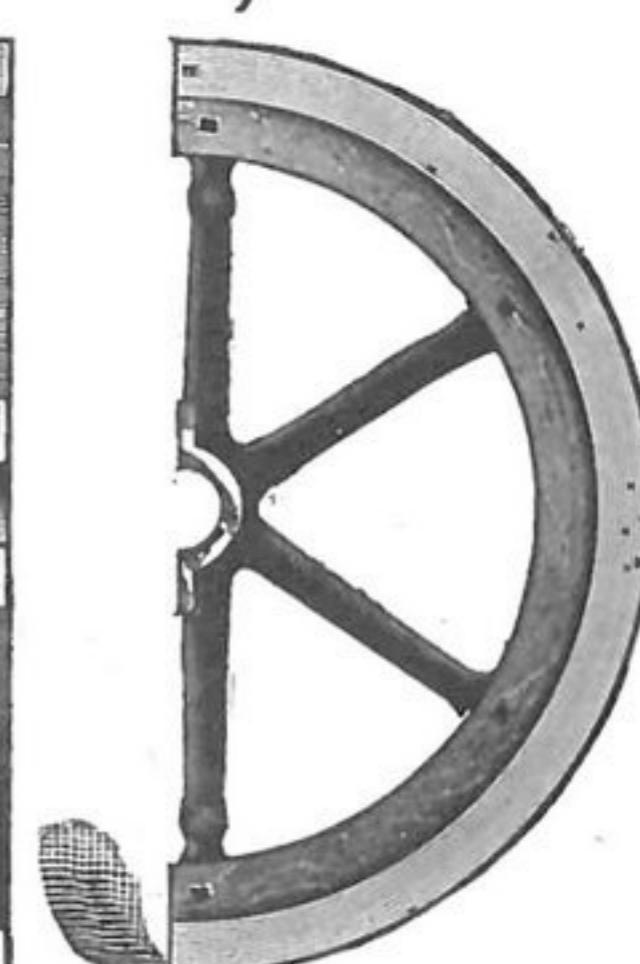
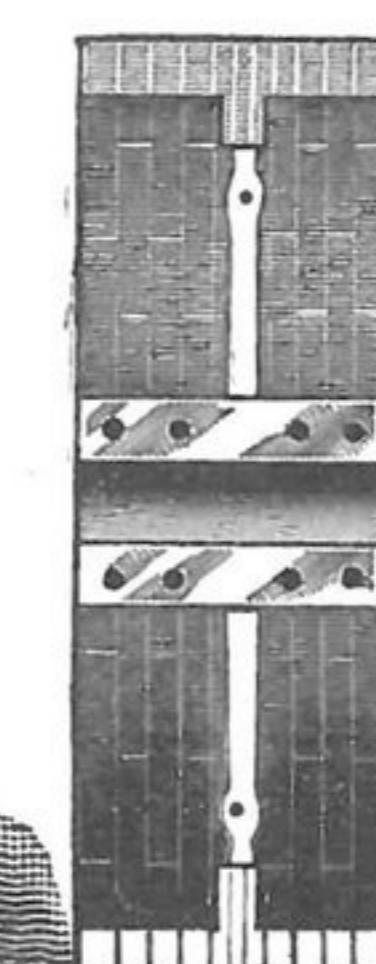
MANUFACTURERS OF PATENT

### Wood Split Pulleys

WOOD RIM WITH IRON ARMS.

### The Best Pulley on Earth!

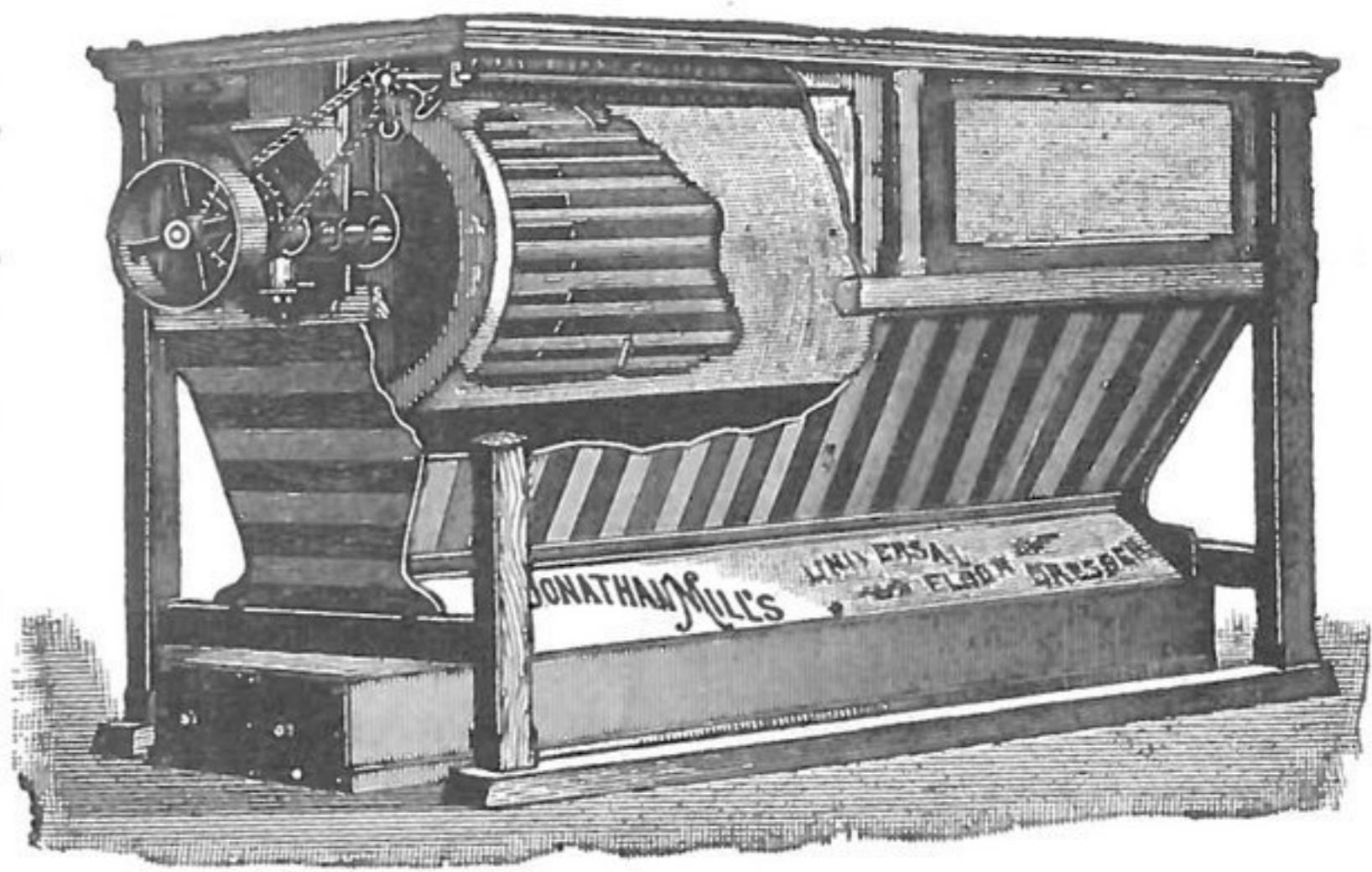
Is very easily and quickly adjusted to Shaft. Has Patent Iron Bushings Interchangeable, to Fit Different Diameters of Shafts. Has FOUR or SIX Bearings on Shaft. This fastening never slips. Every Pulley strongly built and perfectly balanced.



SEND FOR CATALOGUE AND PRICE LIST.

# MILLERS

of the United States and Canada write us for our new pamphlet and revised price list of our **Jonathan Mills UNIVERSAL FLOUR DRESSER.** The best machine on the market. Giving satisfaction everywhere in the best mills in this country. Thousands in use. We carry a full line of Crown Silk anchor Bolting Cloth and Grit Gauzes.



WE SOLICIT YOUR TRADE.

**The Jonathan Mills Mfg. Co., Cleveland, Ohio, U. S. A.**



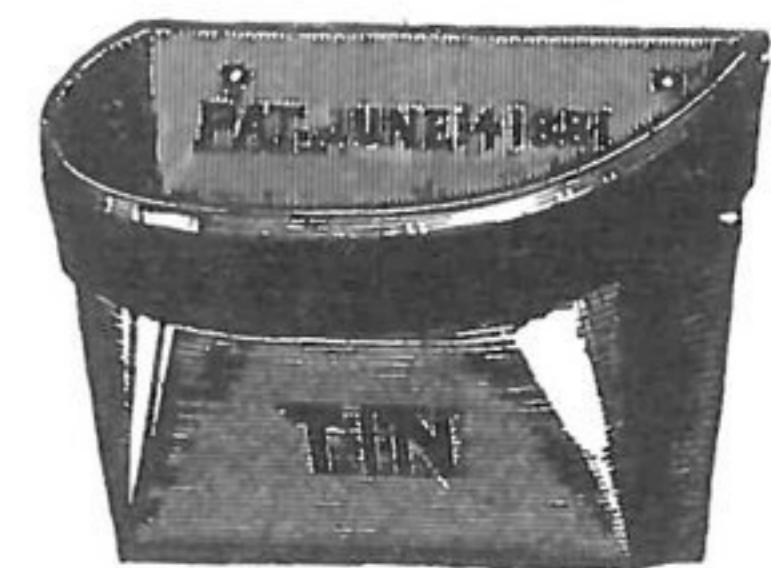
Made of sheet steel, with heavy band.

## BOSS † ELEVATOR † BUCKETS.

If you are interested ask for Prices. Manufactured only by

**W. P. MYER, INDIANAPOLIS, IND.**

16, 18 AND 20 EAST SOUTH STREET.



Made of tinned steel plate, with iron band.



MOORE'S  
PATENT  
BARREL HEATER.  
For all  
kinds of coop-  
erage. Thousands  
in use in all parts of the  
U. S. Send for Circular.

JOLIET STOVE WORKS. JOLIET ILL.



**N. BUSSENDORFFER.**

The  
**D & C**  
TO MACKINAC

### SUMMER TOURS.

PALACE STEAMERS. Low RATES.

Four Trips per Week Between

**DETROIT, MACKINAC ISLAND**  
Petoskey, Sault Ste. Marie, and Lake  
Huron Way Ports.

Every Week Day Between

**DETROIT AND CLEVELAND**

Special Sunday Trips during June, July, August and Sept.

Double Daily Line Between

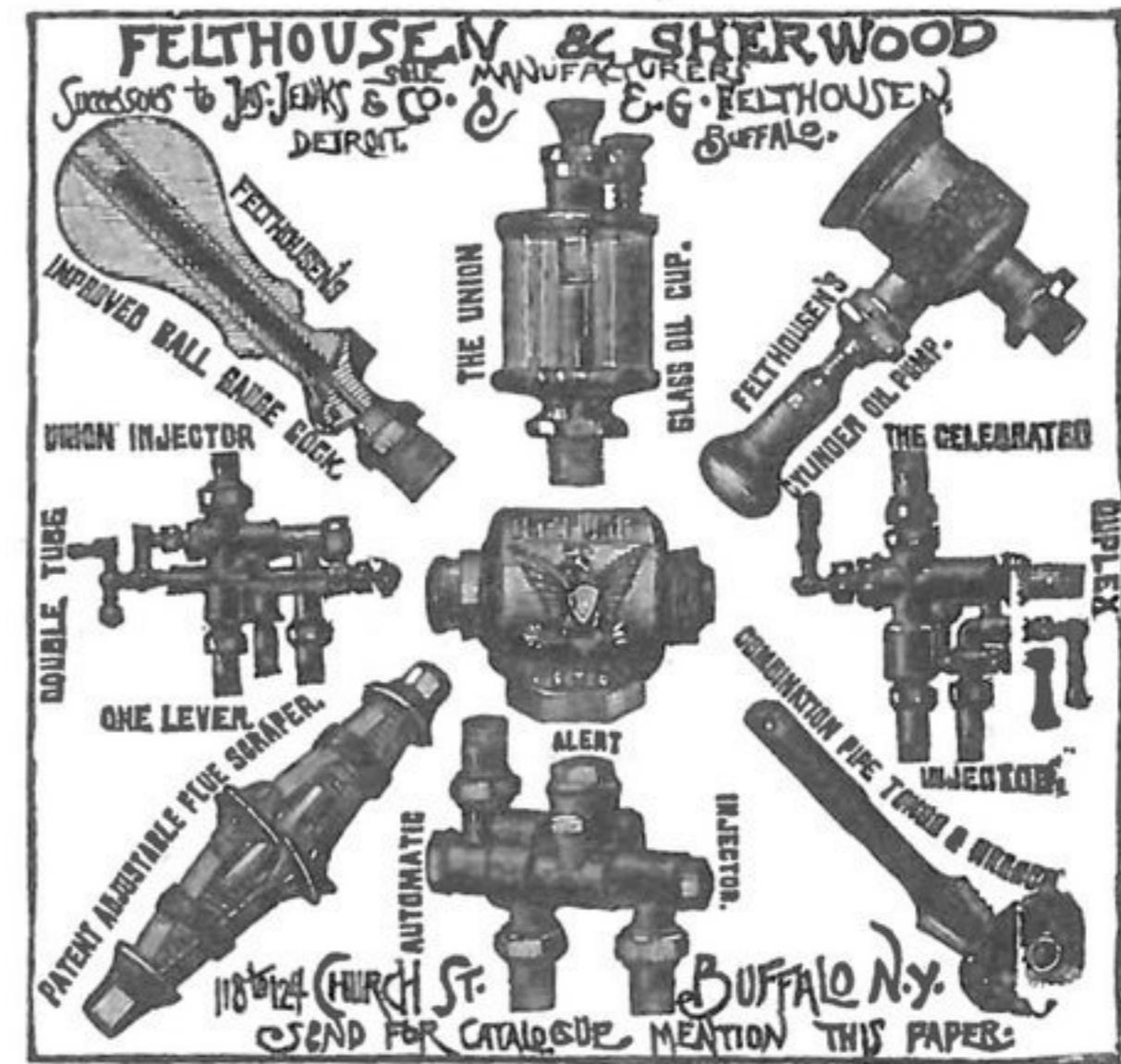
**CHICAGO AND ST. JOSEPH, MICH.**

OUR ILLUSTRATED PAMPHLETS  
Rates and Excursion Tickets will be furnished  
by your Ticket Agent, or address

E. B. WHITCOMB, G. P. A., DETROIT, MICH.,  
Detroit and Cleveland Steam Nav. Co.

**THE BOSTON DONNELL CO.**  
WOOD ENGRAVING, LITHOGRAPHY.

**SHIPPERS CAN SAVE TIME TROUBLE AND CASH**  
BY USING BARLOW'S PATENT MANIFOLD SHIPPING BLANKS. SEND FOR SAMPLE SHEET AND PRICES  
BARLOW BROS. GRAND RAPIDS, MICH.



**THE JOHN H. MC GOWAN CO.**  
RIVAL FEEDER RIVAL STEAM PUMP DUPLEX  
PUMPS FOR ALL PURPOSES CINCINNATI, OHIO. FACTORY OFFICE 46 CENTRAL AVE. PRICE LIST ON APPLICATION  
BRANCH HOUSE, 1425 EAST MAIN STREET, RICHMOND, VA.

## WIRE BOLTING CLOTH—STEEL, BRASS & TINNED

—[ESTABLISHED 1844]—

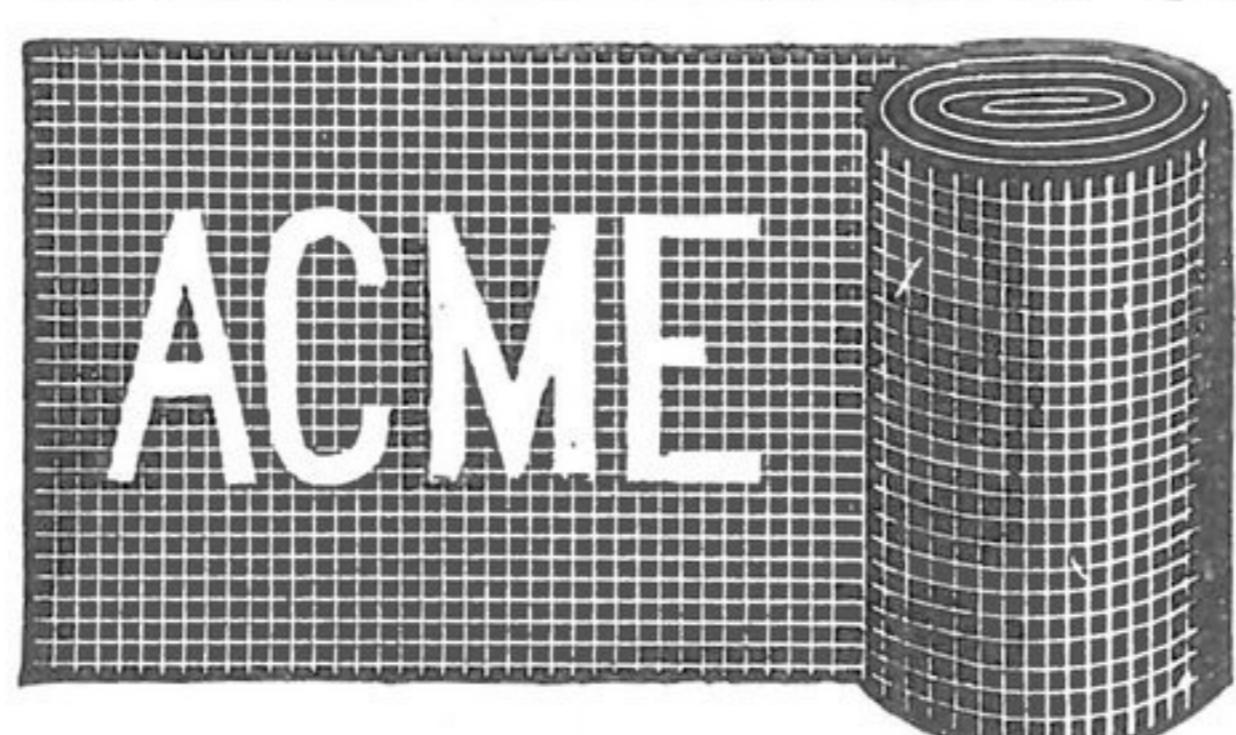
*Exclusive Manufacturers of the*  
**“ACME” STEEL TEMPERED**

**BATTERY & BOLTING WIRE CLOTH.**

Also manufacturers of Bran Duster Cloth, Plated Wire Mill Screen Cloth, Smut Cloth, Brass and Copper Wire Cloth. A full line constantly on hand. Send for samples and price lists.

**Brooklyn Wire Cloth Works.**

NO. 107 JOHN STREET, NEW YORK.



CLOTHS MADE UP WITH PATENT BINDING WHEN DESIRED.

## EUROPEAN ECHOES.

AN Odessa correspondent writing under date of May 21 from Russia says: "Fructifying rains have fallen over the greatest area of the southern provinces, and so far as can be at present foreseen, the harvest promises to be as abundant this year as last. The same difficulties are anticipated with respect to the scarcity and dearness of harvest labor as were experienced last year by large producers."

A CORRESPONDENT writes the Liverpool "Corn Trade News" from the Midlands as follows: "If the information we receive on every hand is correct, the stocks of English wheat in farmers' hands is very heavy at the present time, much heavier than is usual. We did not commence using it until six weeks later than is customary, 30 per cent. less has been used than was the case in the previous year, and the yield, instead of being some 28 bushels to the acre, has been nearer 40. This is our opinion."

THE "let-alone" policy of the London Corn Trade Association does not meet with the approbation of the millers of the United Kingdom. At a meeting of the Council of the National Association of British and Irish Millers, held in London a fortnight ago, the following resolutions were carried: "That an answer to the London Corn Trade Association's Report be drawn up and forwarded to Lord Cross, and that a committee for that purpose be formed," and "that the same committee form a deputation to wait upon the London Corn Trade Association to ask for a modification of the dirt clause in the Indian Wheat Contract Form."

AN Odessa correspondent writing May 18 says: Reports of the crop continue unfavorable as regards winter wheat. Information received from Bessarabia, some parts of Podolia and other south Russian districts are also discouraging, so far as winter wheat is concerned; but spring wheat appears generally to be more promising. The Colza crop is very weak, in fact it is considered almost as lost. There is hardly any change to report in our grain market. Advices from abroad, unfavorable though they are, have not in the least impeded the import movement, which continues fairly active for wheat. The new arrivals are accumulating, which causes holders some trouble; but our export trade being still heavy, our stock decreased considerably, and now hardly amounts to 650,000 quarters.

IT has been charged against Roumanian wheat exporters that they have been trying to pass their wheat into Great Britain and other countries as Hungarian wheat. The Consul-General of Roumania, in a letter to the London "Times," combats this charge, pointing out that, although the Roumanian grain is smaller, it produces 20 per cent. more flour than either Hungarian or American wheat and makes sweeter bread. He contends that Roumanian exporters have no interest in misleading foreign buyers, but that they would depreciate their own produce by passing it off as Hungarian. Since 1885 a heavy duty has been imposed by Austro-Hungary on importations of Roumanian wheat, and

to this impediment the decline of the great Hungarian milling industry is in no small degree attributable. During the following years the value of Roumanian exports of grain to Great Britain has been, in 1883, about £3,485,195; 1884 about £2,399,872; 1885 about £3,167,464. In 1886 the exports amounted to about £4,255,844.

SAYS the London "Miller" of May 27: Harvest prospects have been advanced by recent weather, some days of the past week having been very hot and fine. All day and all night the temperature has kept high, 65 to 80 degrees in shade, while there have been local storms giving heavy rain. The season has been so stimulated that May will have several wheat ears to show, and the prospect is for harvest at a normal date and not a fortnight to a month late, as was the case last year. Most memories fail to remember such a May as the present for its sudden temperature, equal to top summer heat. France is hoping still for a large harvest, but the week's storms are acknowledged to be present troubles and signs of further disasters. The present consumption of flour in Paris is much above the normal quantity, and with a likelihood of continuance, increased demand is becoming a factor that supports the market. Merchants, however, buy very reservedly. Germany has been cheaper for wheat in the past week, recovering at the end half of its early decline. Russia repeats its complaints of harvest prospects, but these are improved by recent rainfall. Any crop equal to last year is not expected.

## COTEMPORARY COMMENT.

The millers of the Northwest talk about national organization and general meetings. As a fact, they can not organize among themselves. They come to a meeting loaded with local and factional fights.—*Indianapolis "Millstone."*

The result of the Milwaukee consolidation is a "Corker" of small pica size.—*Kansas City "Modern Miller."*

Consistency surely demands that the duty on wheat and flour should be equalized. If the National Policy is a recognized political principle, the Government should not try to zigzag on the lines of that principle. It would be manifestly as much in favor of the Northwestern farmer as the Ontario miller that this equalization should be acted on. And when reform and re-adjustment are going on, it might be equally proper that the right of grinding United States wheat in bond should be withdrawn from these same millers. Were that done, eastern millers would have to get the whole of their supply of hard wheat from the Canadian Northwest. The farmers of this region have a right to be protected from the free importation of United States wheat to Ontario.—*Winnipeg "Nor'-West Farmer and Manitoba Miller."*

Cawker, of the poor, dilapidated old United States Miller, has "got 'em again," and is trying to galvanize himself back into life and public favor by bullying more fortunate milling editors into noticing him free because he can't pay for his advertising. But he will be forgiven by the boys if he will only bring back the roster of the members of the Millers' National Association, which he borrowed and sent to Chicago to count noses from when he was mad at the Association.—*St. Louis "Miller."*

## The Canton Cabinet Filing Case Company, Canton, Ohio,

MANUFACTURERS OF

## The New Buckeye Document Case &amp; Letter File; Also All Kinds Office Furniture

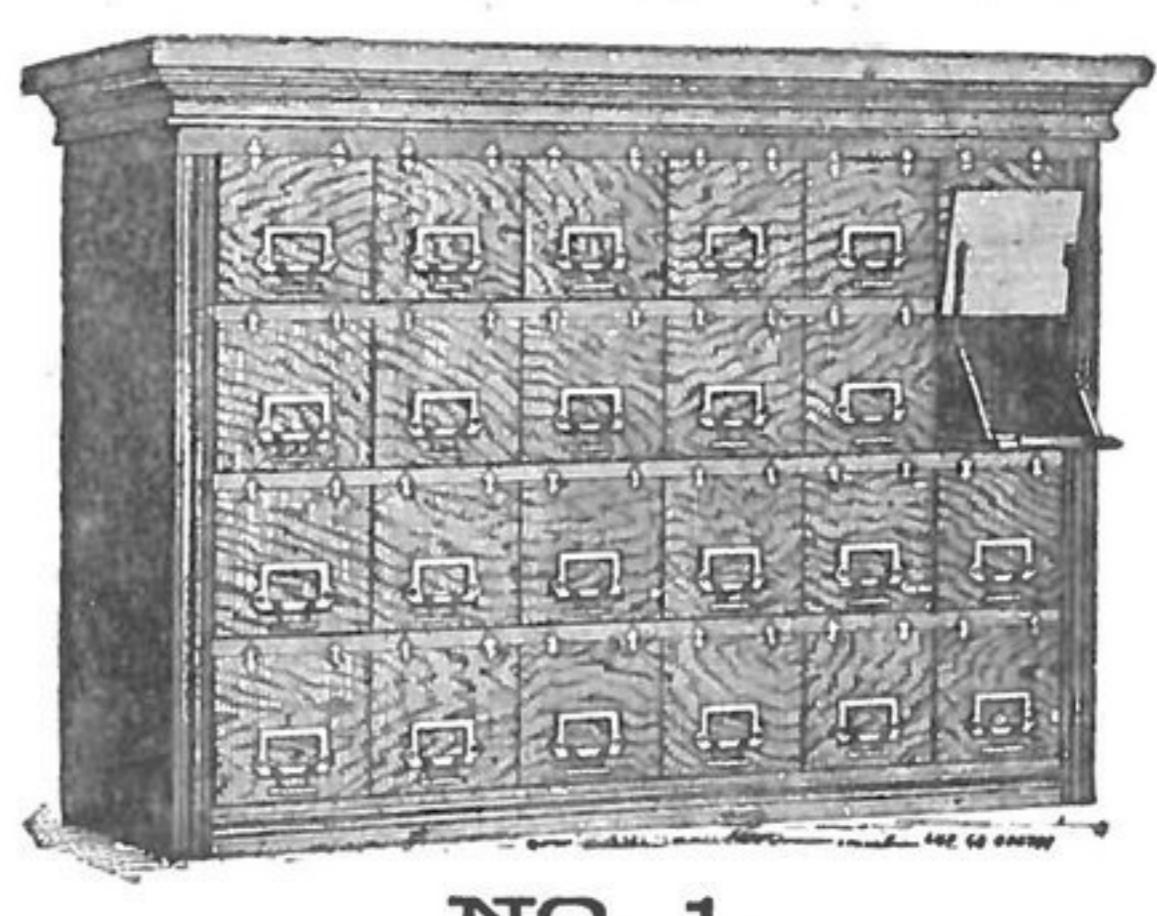


NO. 8 Represents one side of one of our Revolving Cabinet Letter Files and Document Cases Combined. It contains 30 Document Drawers and 8 Letter File Drawers. In filing letters we use first VOWEL of name on front of drawer, and LETTER FOLLOWING first VOWEL on Index Sheet within drawer. We also make more exhaustive systems which contain from 6 to 100 or more filing drawers.

NO. 1 Represents one of our small Document Cabinets, for use on desks or brackets. Action of drawer can be seen in the cut. When front is raised inner drawer comes forward, exposing contents of drawer for inspection.

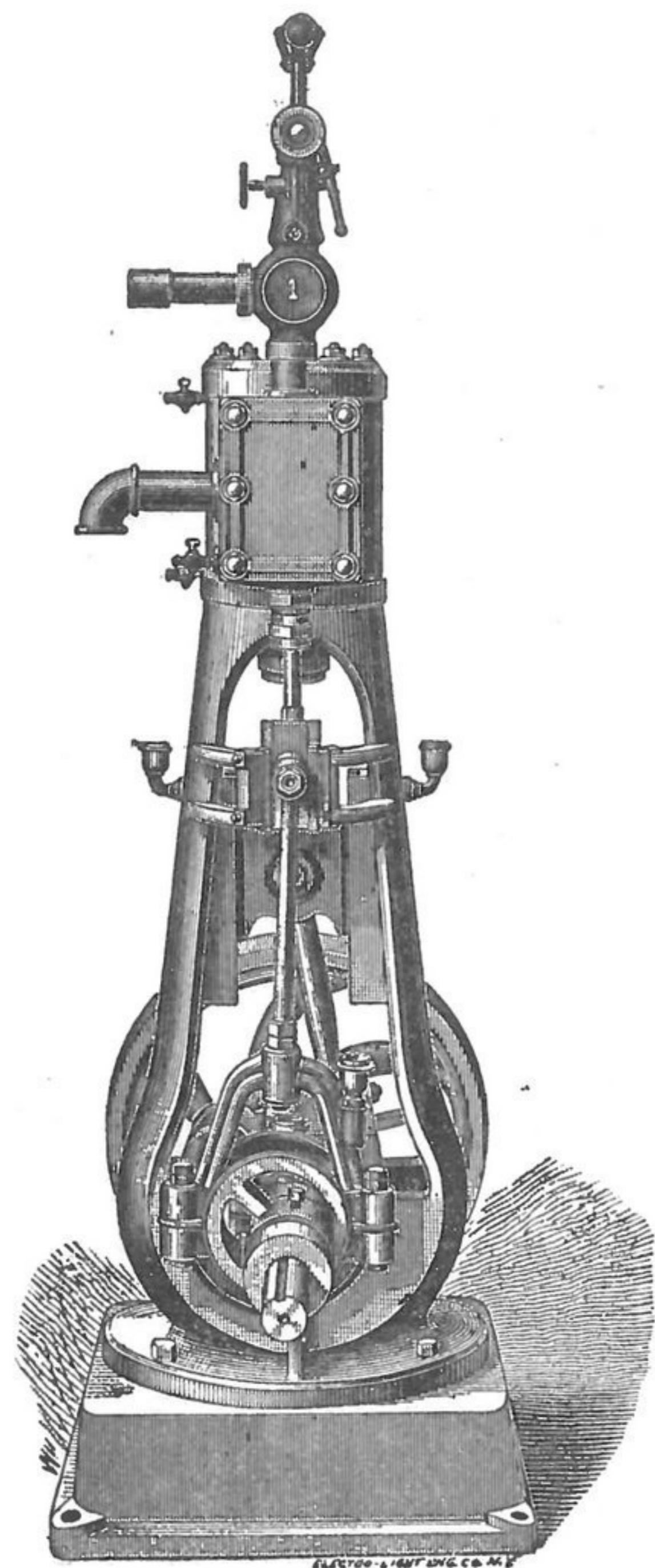
Our Cabinet Files are conceded to be the Most Convenient of any in the Market. They are Compact, Simple, Complete, Durable and Ornamental.

SEND FOR PRICE LIST AND CATALOGUE.



NO. 1.

## AUTOMATIC VERTICAL ENGINES



Especially adapted for Small Electric Light Plants. Perfect Regulation. Reversible Link Motion for Marine Use. Five to Fifteen Horse Power. Also manufacturers of

### Lathes and Special Tools

Metal Patterns, Models and Machinery Built to Order. Send for Prices and Specifications.

**Lloyd & Sterrett**  
COR. 16TH AND STATE STS.,  
ERIE, - - PENN.

**EAGLE IRON WORKS,**  
DETROIT, MICH.

MANFRS. OF HIGH GRADE  
**BOILERS**

HORIZONTAL, UPRIGHT  
PORTABLE AND MARINE.

**Oil Tanks** **Smoke Stacks,**

**HEAVY SHEET IRON WORK.**

**CORRESPONDENCE SOLICITED.**

## PAYNE HIGH SPEED CORLISS ENGINE

SHAFT GOVERNOR COMBINED WITH CORLISS WRIST-PLATE.

ECONOMY OF FUEL.

REGULATION EQUAL TO ANYTHING IN USE.

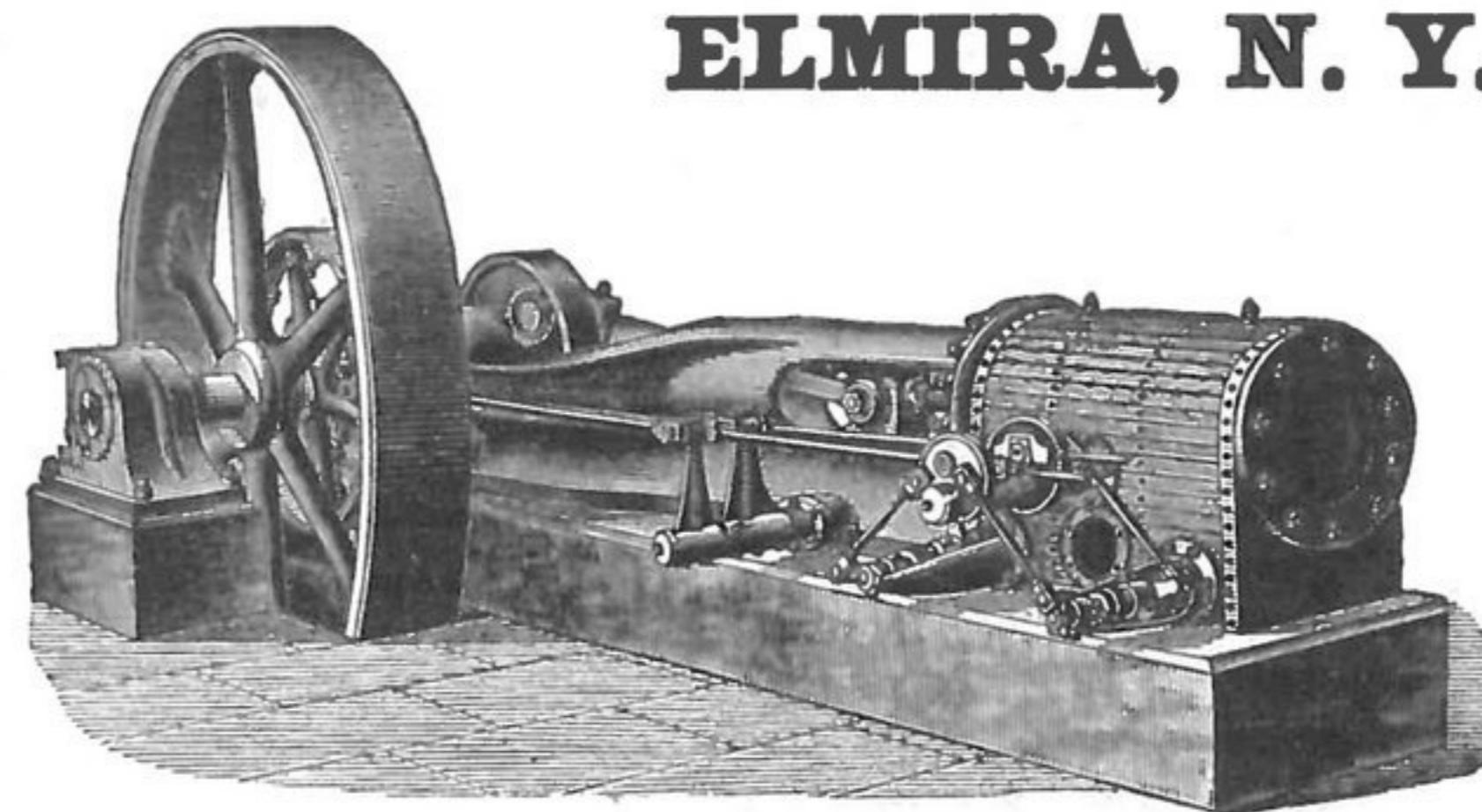
**B. W. Payne & Sons,**

**ELMIRA, N. Y.**

10 S. Canal Street,  
CHICAGO, ILL.

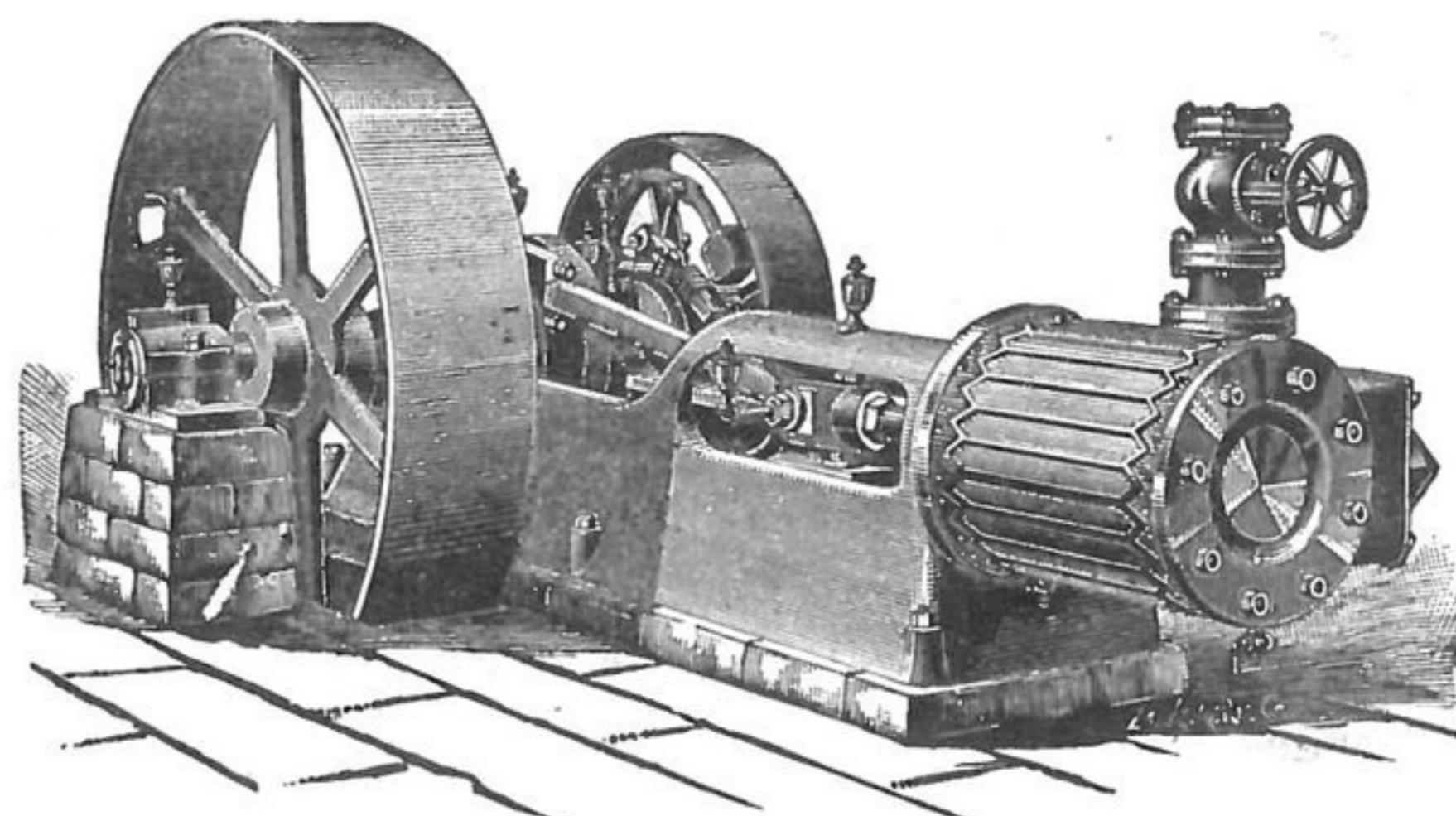
45 Dey Street,  
NEW YORK.

Hill, Clark & Co.  
BOSTON, MASS.



AUTOMATIC ENGINES FROM 2 TO 200 HORSE POWER.

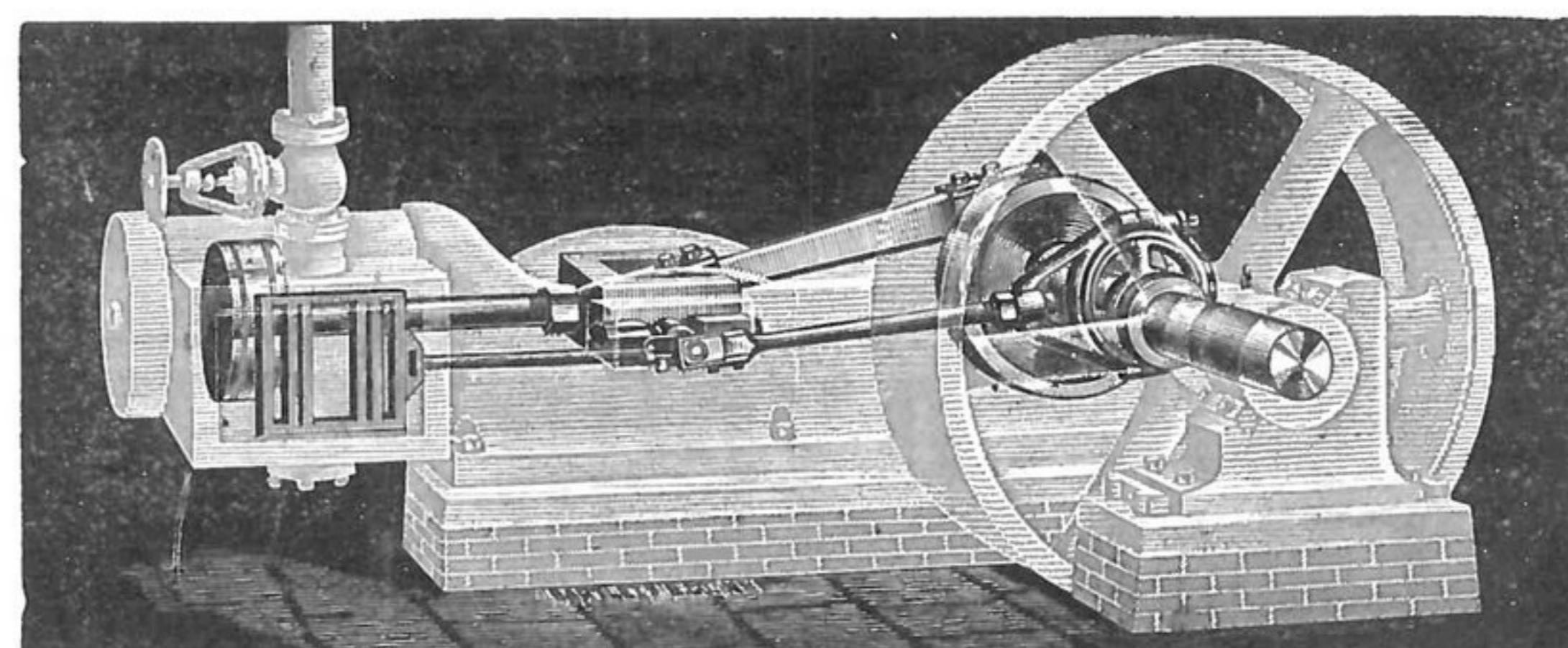
## Economic Power Plants



Especially Adapted to Electric Lighting and  
**WOOD-WORKING ESTABLISHMENTS**  
MANUFACTURED BY  
**VALLEY IRON WORKS, WILLIAMSPORT, PENN.**

*Please Send for Our New Catalogue and Mention "The Milling World."*

## THE NEW PORTER HEAVY-DUTY ENGINE.



The Most Power for the Money, and All Things Considered the Most Economical.  
For Illustrated Circular Address,

**PORTER MANUFG. CO., LIMITED, SYRACUSE, N. Y.**



OFFICE OF THE MILLING WORLD,  
BUFFALO, N. Y., June 15, 1889.

Friday of last week brought crop reports that strengthened wheat somewhat. June wheat closed at  $81\frac{1}{8}$ c. Options 2,000,000 bushels. June corn closed at  $41\frac{1}{8}$ c. and oats at  $27\frac{1}{8}$ c. Wheat flour was easy, despite the strength in wheat. Sales were not large. No changes were noted in the minor lines.

Saturday brought reports of rains in the winter-wheat sections, which kept wheat firm. June wheat closed at  $81\frac{1}{4}$ c. Options 4,000,000 bushels. June corn closed at  $41\frac{1}{4}$ c. and oats at 28c. on the weather reports. Wheat flour was dull and unchanged, despite the firming up in wheat. All the other lines were featureless.

Monday brought renewed reports of wet and unsettled weather in those portions of the winter-wheat states where harvesting is going on, which caused a stronger opening. Later reports indicated improved weather, and wheat became lower. June wheat opened at  $81\frac{1}{4}$ c. and closed at  $81\frac{1}{4}$ c. Options 1,900,000 bushels. June corn closed at  $41\frac{1}{8}$ c. and oats at 28c. According to the Government report there is a slight increase in winter-wheat area seeded, but the breadth harvested may be possibly a million acres more than in the last crop, largely in Kansas and California. The seeded and harvested area in Kansas will this year be nearly identical, and the large breadth in California, which is cut for wheat in years of low yield, will in part be harvested for grain this season. The condition of winter wheat still remains comparatively high, though it has fallen three points during the last month and averages 93 for the country. The following state averages are given: New York 96; Pennsylvania 95; Maryland 98; Virginia 97; Georgia 95; Texas 88; Kentucky 86; Ohio 88; Michigan 90; Indiana 90; Illinois 92; Missouri 98; Kansas 98; California 98. The area of spring wheat has increased about 3 per cent. The prevailing estimates show a loss of 3 per cent. in Wisconsin and 1 in Minnesota, and a gain of 1 in Iowa, 3 in Nebraska and 7 in Dakota, with an increase in the mountain region. The condition of spring wheat is high, except in parts of Dakota, where it has suffered from drought. Averages are as follows: Wisconsin 96, Minnesota 93, Dakota 88, Nebraska 99 and Iowa 99. Condition is generally high in the mountain districts. The average is nearly 95 for the entire spring-wheat breadth. An increase of 2 to 3 per cent. in the area of oats is reported, while condition is seven points below the normal standard of a full crop. The area of barley is about the same as last year, and its average of condition 95. Rye has made no perceptible advance in area and its general average of condition.

Wheat flour was dull and unchanged and in buyers' favor, notwithstanding the strength in wheat. The minor lines were featureless. The visible supply in the United States and Canada was:

	1889.	1888.	1887.
	June 8.	Jun 9.	June 11.
Wheat .....	18,892,181	25,752,815	42,112,176
Corn.....	12,020,237	11,105,065	12,516,070
Oats.....	6,333,310	5,329,313	3,282,800
Rye .....	1,067,239	212,985	253,880
Barley .....	385,623	262,201	168,815

Tuesday brought a weaker opening on better weather in the West and the favorable government report, with a rally on covering by shorts. June wheat closed at  $81\frac{1}{8}$ c. and July at  $81\frac{1}{8}$ c. Options 4,300,000 bushels. Export demand was fair. June corn closed at  $41\frac{1}{2}$ c. and oats at  $28\frac{1}{8}$ c. Wheat flour was dull, unchanged and in buyers' favor. Following is an interesting comparative showing circulated in New York:

Condition	Yield in		
June 1.	Per cent.	Acreage.	Bushels.
1884.....	92	28,343,515	356,253,200
1885.....	62	22,146,350	211,814,000
1886.....	92.7	24,532,386	302,376,000
1887.....	84.9	24,221,030	292,830,000
1888.....	73.5	22,999,934	277,952,000
*1889.....	93	24,900,000	323,700,000

\*Estimated June 1, with all conditions favorable until crop is in granary.

For spring wheat, the approximate acreage and yield June 1, since and including 1884, are:

Condition	Yield in		
June 1.	Per cent.	Acreage.	Bushels.
1884.....	101	11,130,000	156,474,000
1885.....	97	12,041,000	145,267,000
1886.....	98.5	12,030,000	154,806,000
1887.....	87.3	13,008,000	163,462,000
1888.....	92.8	14,336,000	187,948,000

From the last estimate the promise is from 13,784,000 acres, based on a 9 years' average at 13.6 bushels per acre, for a yield of 187,460,000 bushels. The estimates admit of considerable risk. Thus far the season has been an off year. While reports were never better prior to June 1, since then many crop reporters claim serious damage has been done either by absence of rain in the Northwest or too much on the winter-wheat fields, where cutting has begun. Concerning the spring-wheat situation in the northwest, Chicago "Daily Business" in its statement of crop conditions on June 11 says: On the whole, the situation in the northwest appears to be much better than a year ago, and most of our correspondents look for a yield fully 25 per cent. greater than last year, or equal to the crop of 1887, when Dakota harvested 52,000,000 bushels and Minnesota over 36,000,000 bushels. Some even predict that Minnesota will reach the high-water mark of 1886; which was very nearly 43,000,000 bushels.

Wednesday brought reports of rather serious damage by heavy rain to the winter-wheat crop, some of the crop-guessers reporting the damage so decided that the yield was likely to be only equal to that of last year. June wheat opened at  $81\frac{1}{8}$ c. and closed at  $81\frac{1}{4}$ c. Options 1,250,000 bushels. June corn closed at  $41\frac{1}{8}$ c. and oats at  $28\frac{1}{8}$ c. Rye grain was steady at the following quotations: Boat loads of State and Jersey afloat, offered at 53c and 50c bid on spot and track; 48@50c for ungraded; strictly No. 1 scarce at 51@52c in elevator nominally; Western, 46@48c spot, afloat and to arrive. Malt was quiet at  $92\frac{1}{2}$ c@1.00 for Canada; two-rowed State, 85@87c; six-rowed do, 88@95c. Mill-feed was in fair demand at 50@55c for 60-lb, 50@60c for 40-lb and 80-lb, and 75@80c for 100-lb; rye chop, 65@70c; \$1.20@1.30 for both oil and cotton seed meal.

Wheat flour was not notably changed, yet there were weaker and easier spots in the line. There was a fair export trade for the West Indies and the United Kingdom, principally in low-grade springs. The quotations were as follows:

SPRING FLOUR.		
	Sacks.	Barrels.
No grade.....	\$1.70@1.85	\$....@....
Fine.....	2.10@2.15	2.25@2.50
Superfine.....	2.30@2.60	2.70@3.00
Extra No. 2.....	2.90@3.10	3.00@3.25
Extra No. 1.....	3.30@3.65	3.50@4.15
Clear.....	3.35@3.65	3.65@3.90
Straight.....	4.35@4.90	4.40@5.15
Patent.....	5.20@5.50	5.05@5.75

WINTER FLOUR.		
	Sacks.	Barrels.
No grade.....	\$1.80@2.00	\$....@....
Fine.....	2.20@2.50	2.35@2.60
Superfine.....	2.60@3.00	2.90@3.15
Extra No. 2.....	3.10@3.40	3.35@3.50
Extra No. 1.....	3.50@4.15	3.70@4.70
Clear.....	3.65@4.00	3.90@4.45
Straight.....	4.15@4.50	4.40@4.70
Patent.....	4.40@4.65	4.90@5.25

CITY MILLS.		
W. I. grades.....	\$4.20@4.35	
Low grades.....	2.35@2.65	
Patents.....	4.90@5.90	

Rye flour was dull at \$2.65@2.85. Corn products were steady at the following quotations: City coarse, in bags, 80c; fine yellow do, 90@92c; fine white do, 95c; Brandywine, \$2.75; Western and Southern, \$2.60@2.70; hominy and samp, \$2.70@2.75.

On Thursday June wheat closed at  $81\frac{1}{8}$ c. Options 11,640,000 bushels. The market was active and excited. June corn closed at  $41\frac{1}{8}$ c. and oats at 28c. Wheat flour was slow and unchanged. The minor lines were featureless.

#### BUFFALO MARKETS.

**WHEAT**—There was a good demand for new No. 1 hard wheat to-day. It was sold early at 97c. but as soon as a couple of dealers were cleaned out it advanced to 98c. but could find no buyers at that price, and the consequences were that it declined 1c as soon as it had advanced. Chicago June opened at  $78\frac{1}{4}$ c. advanced to 79c. declined to  $78\frac{1}{4}$ c. and closed at 79c. an advance of  $\frac{1}{4}$ c from the opening price, and an advance of  $\frac{1}{4}$ c from yesterday's closing price. Sales comprised a few caaloads No. 2 Northern at 80c and 3,500 bu new No. 1 hard at 97c. Old do was quoted at \$1.21 $\frac{1}{2}$ c. new 1 Northern at 68c, old 95 $\frac{1}{4}$ c. and No. 2 do sold at 80@80 $\frac{1}{2}$  asked. Winter wheat firmer; sales were made of 4,000 bu No. 2 red at 86 $\frac{1}{2}$ c in store, and 1 carload No. 1 white at 90c on track; No. 2 choice red was offered at 86 $\frac{1}{2}$ @87c on track, and 88@85c in store; No. 1 white Oregon was quoted at 85c in store. **CORN**—In active demand and market steady; 1,200 bu No. 2 corn changed hands as 88c, 8,000 do No. 8 yellow at  $87\frac{1}{4}$ c, 16,000 do do at 87 $\frac{1}{4}$ c, 8,000 do No. 2 yellow at 88 $\frac{1}{4}$ c, and 8,000 do No. 3 yellow at 87 $\frac{1}{4}$ c. **OATS**—Strong. Sales were made of 1,000 No. 2 mixed at 28 $\frac{1}{4}$ c. and 3,000 do do at 46 $\frac{1}{4}$ c in store; No. 2 white sold at 31c early in the day, but later 31 $\frac{1}{4}$ c was asked, and No. 3 do 29 $\frac{1}{4}$ c on track. **CANAL FREIGHTS**—Steady. Rates of freight on wheat to New York 4c. on corn 8 $\frac{1}{2}$ c on oats 25 $\frac{1}{2}$ c, and on rye, 8 $\frac{1}{2}$ c; lumber rates to New York \$2.25, to Albany \$1.75. **RYE**—Nominal at 52@53c for No. 2 Western. **FLOUR**—City ground—Patent spring \$6.25@6.50 straight Duluth spring, \$5.75@6.00; bakers' spring best, \$5 50@5.75; do rye mixture, \$4.75@5.00; patent winter, \$8.00@8.25; straight winter, \$5.00@5.25; clear winter \$4.75@5.00; cracker, \$4.75@5.00; graham \$4.75@5.00; low grade, \$3.09@4.00; rye, \$3.25@3.50 per bbl. **OATMEAL**—Akron, \$6.00; Western \$5.75 per bbl; rolled oats, in cases, 72 lbs \$3.25. **CORNMEAL**—Coarse, 85c; fine, 90c; granulated, \$1.50 per cwt.

#### "DE MAN WOT KNOWS IT ALL"

*is allus a-makin' change, a-buyin' ob experience."*

The man who does not think that he "Knows it All" about Pumps, Steam Engines and Boilers Can find out a great deal about them in

GRIMSHAW'S PUMP CATECHISM	- \$1.00
STEAM ENGINE CATECHISM	- - - 2.00
BOILER CATECHISM	- - - - 2.00
PREPARING FOR INDICATION	- - 1.00
BY MAIL POSTPAID.	

McFaul & Nolan



**RELIANCE OIL & GREASE CO., CLEVELAND, O.,**

—MANUFACTURERS OF—

**Finest Lubricants for Milling Plants. A Challenge to the World.**

WRITE US.

"VALVE OLEINE"—675 Degrees Fire Test, Cylinder Oil.

"RUSSIAN"—Engine and Machine Oil.

"CHIEF"—Roller Mill Lubricant.

"ANCHOR"—Roller Mill Grease.

"NIAGARA"—Belt Grease.

"CHELSEA"—Scale Solvent, Best on Market.

SPECIAL  
HIGH GRADE  
PRODUCTS

Agents Wanted.

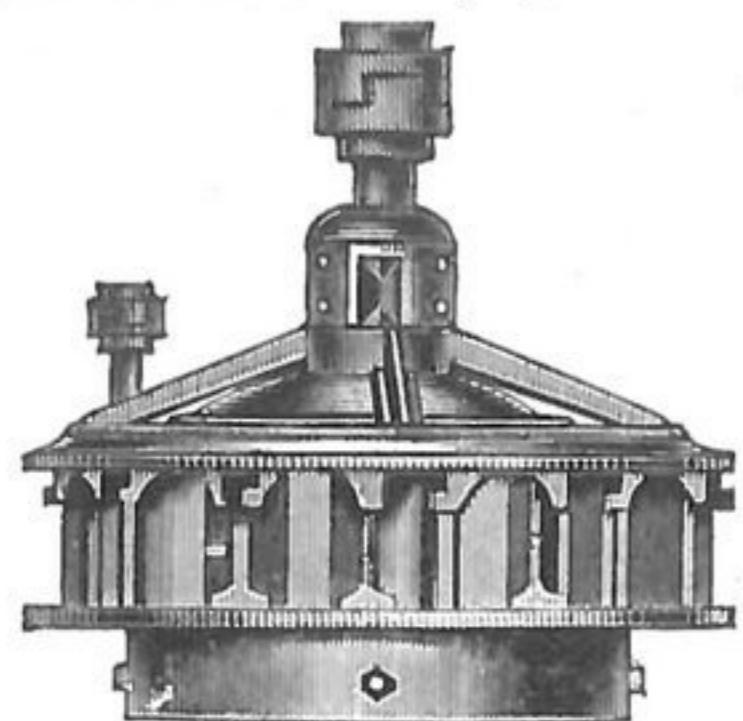
**FREE—SAMPLES, CATALOGUE, AND ALL INFORMATION.**

## THE IMPROVED "SUCCESS"

THIS WHEEL IS BOTH DURABLE AND CHEAP

PERCENTAGE: {

Full Gate..... 86.29  
½ Gate..... 86.07  
¾ Gate..... 81.25

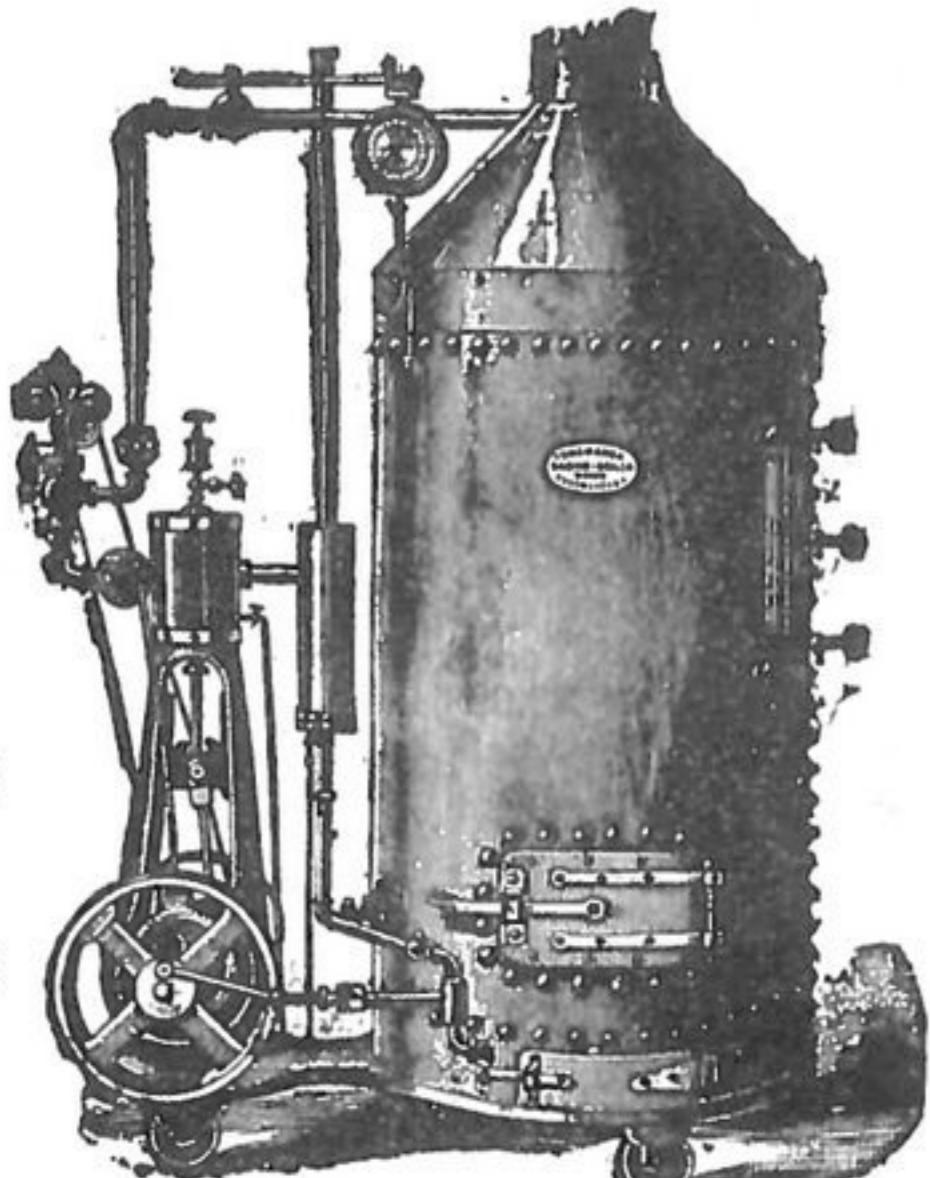


SEND FOR PAMPHLET TO

**S. Morgan Smith, York, Pa.**

**TONAWANDA  
ENGINE AND BOILER WORKS**

A Large Assortment of Machinery.



SEND FOR CATALOGUE.

**ARMITAGE, HERSCHELL & CO.**  
Tonawanda N. Y.

The Best 6-Horse Power Semi-Portable Up-right Engine and Boiler Made.

## New Improved Patent Head Linings.



### DESCRIPTION.

These Linings are curved edgewise and flatwise, besides having the edge beveled, so as to make them fit the head and chine PERFECTLY, without springing them edgewise when nailing.

If you use them once you will have NO OTHER. No need of pounding fingers, as the ends do not have to be held down while nailing. They are much more convenient to nail and look better than any other. They are first tied in bundles of two hundred, and, when dry, are put into bales, weighing about fifty pounds each, and tied with two strong wires, to make them handle better and to prevent loosing out in transit. Write for prices and state about the number you use per year.

To convince you of their merit, and for the purpose of introducing them, I will ship a sample order of from five to ten thousand at a REDUCED RATE.

*SEND US A TRIAL ORDER: SATISFACTION GUARANTEED.* **J. H. PETERS,**  
Owner of Patent and Manufacturer,  
COLEMAN, MICH.

**L. L. WHITLOCK,**  
**Advertising Agent**

FOR MANUFACTURERS.  
TRADE JOURNALS A SPECIALTY.  
P. O. DRAWER 5323. *Boston, Mass.*

As Agent for Advertisers instead of Papers, I obtain the Best Rates Possible for my Customers.

\* **THE INK** \*

WITH WHICH THIS PAPER IS PRINTED  
IS MADE BY THE  
**QUEEN CITY PRINTING INK CO.**  
CINCINNATI, O.

## THE STEVENS PORTABLE MILLS

For CORN and  
FEED GRINDING

Genuine French

**BUHR STONES**

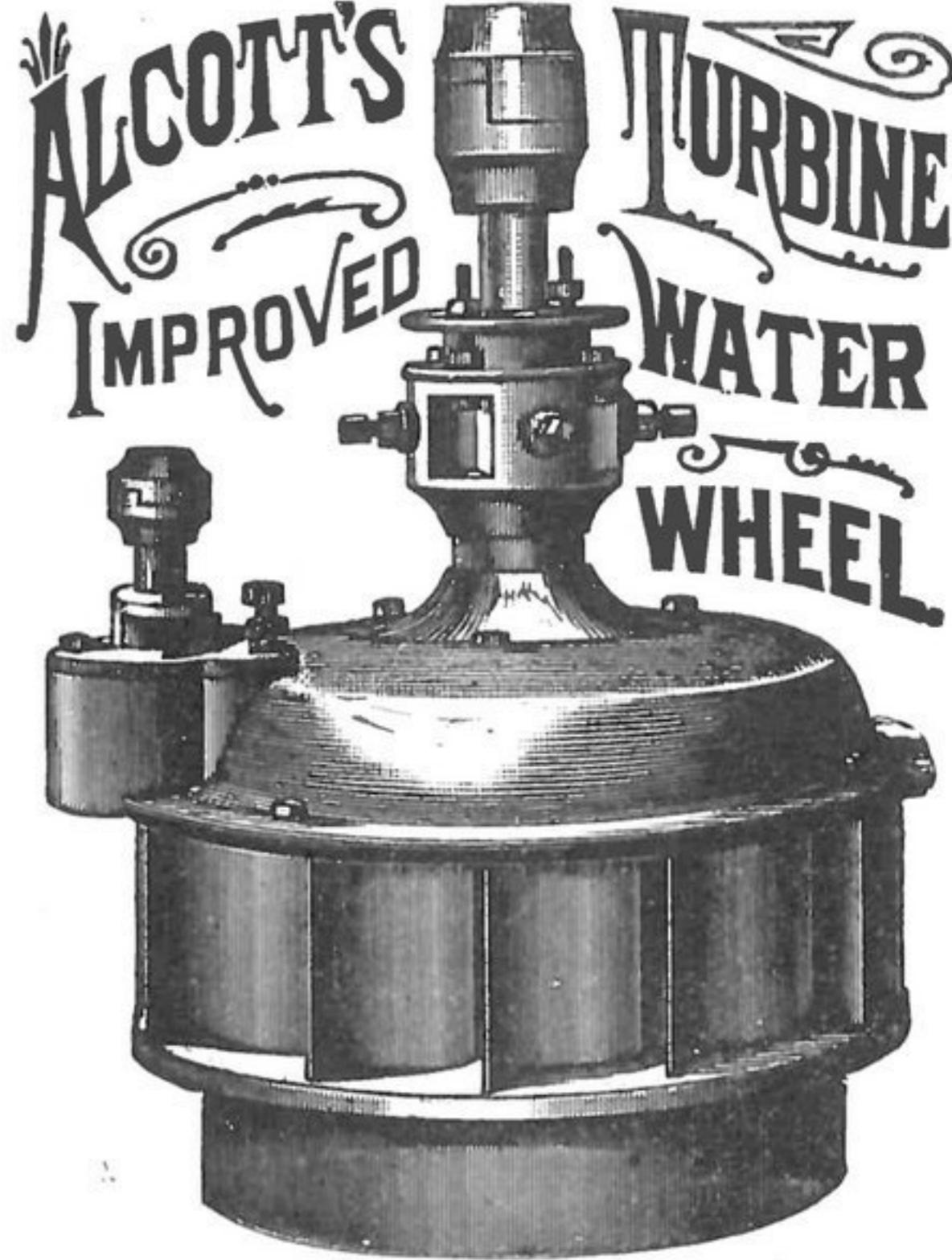
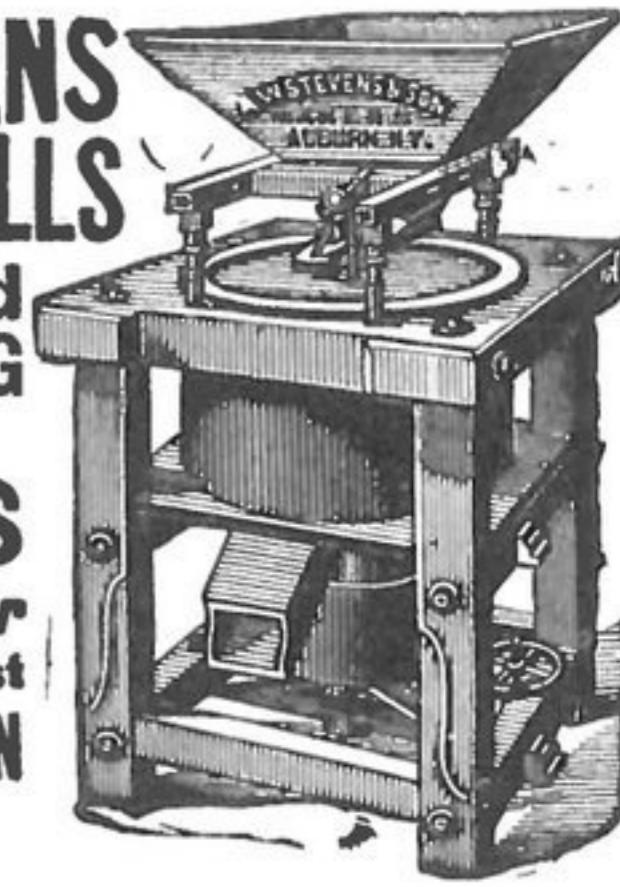
*PowerCorn Sheller*

Prices Below the Lowest

**A. W. STEVENS & SON**

AUBURN, N. Y.

Mention this paper.



THIS WHEEL GIVES HIGH RESULTS, AND IS ACKNOWLEDGED THE BEST, MOST PRACTICAL AND EFFICIENT TURBINE MADE. FOR SIMPLICITY, DURABILITY, AND TIGHTNESS OF GATE IT HAS NO EQUAL.

State requirements and send for Catalogue to

**T. C. ALCOTT & SON,**  
**MOUNT HOLLY, N. J.**

## The LIPPOLD DUSTLESS CORN SHELLER & CLEANER

MANUFACTURED BY

**The LIPPOLD MFG. CO.**  
ERIE — PENN.

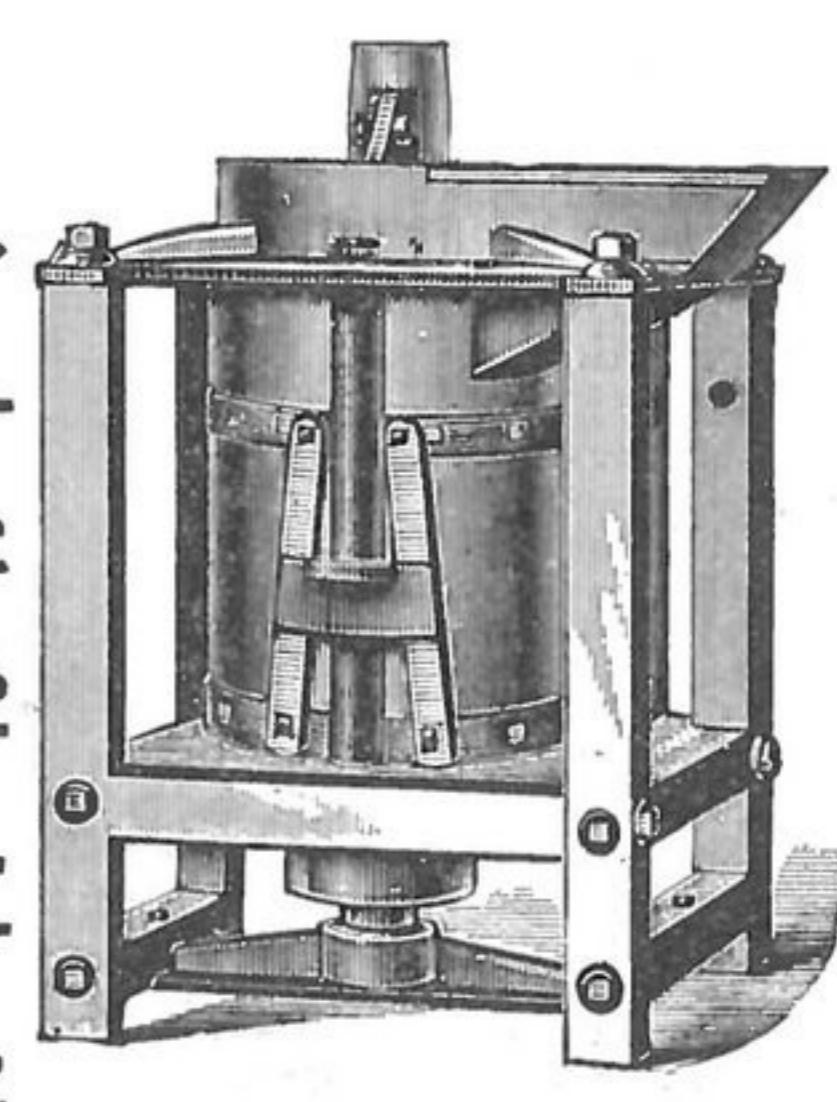
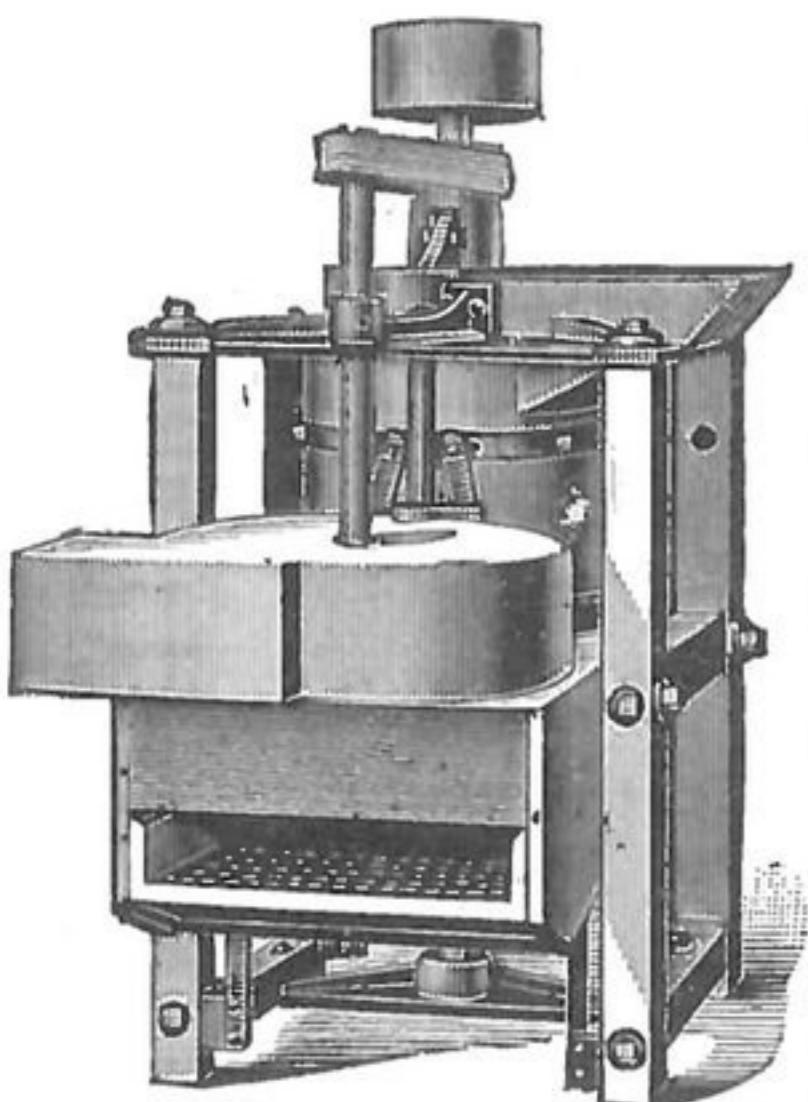
**THE HIGHEST CAPACITY for the LEAST MONEY.**

**The Best Machines for Mills and Elevators.**

**Machines Sent on Thirty Days' Trial.**

**SHELL UNHUSKED CORN AND CLEAN IT PERFECTLY.**

**WRITE FOR ILLUSTRATED CIRCULAR WITH PRICES.**  
NAME THIS PAPER.



# INSURE IN THE TRADERS & TRAVELERS

Accident Company,  
287 BROADWAY, NEW YORK.

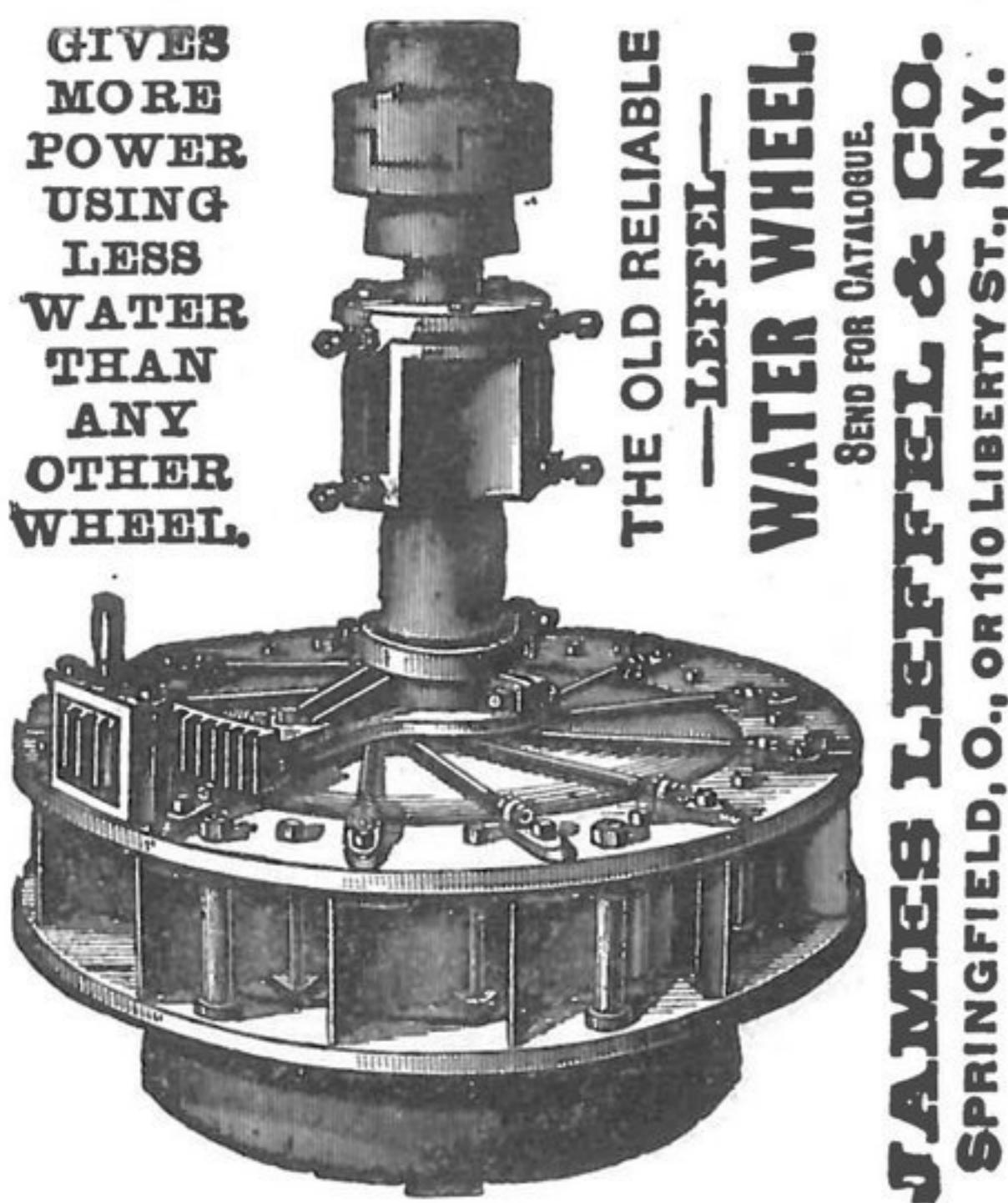
## BENEFITS.

\$5,000 for Death.  
\$5,000 Loss of Limbs.  
\$2,500 Loss of Limb.  
\$2,500 Loss of Sight.  
\$1,250 Total Disability.  
\$650 Loss of One Eye.  
\$25 Weekly Indemnity for  
26 Weeks.  
One Set of Individual Registry Plates  
Included.

## COST.

Four Quarterly Payments, \$10.00  
Annual Dues, - - - 1.00  
Membership Fee, 5.00. \$11.00

**IMPORTANT NOTICE.**—The Traders & Travelers Accident Co. of New York desire the services of one responsible representative in each town to act as agent for the general transaction of their business. A liberal and permanent arrangement will be made with parties who can fill the above requirements. Address C. S. SOMERVILLE, Sec'y.



**PREJUDICE** Is a thief and robs you of many good things in this age of phenomenal progress. It pays to investigate. Send for Illustrated Price List of Reliance Safety Water Columns. They protect life and property, save repairs and enforce economy. Every Column Warranted.

Reliance Gage Co., 831 Sheriff St., Cleveland, Ohio.

## THE "HARLOW" Positive Feed Lubricators.

For Marine and Stationary Engines, Steam Pumps, Electrical and other Machinery.

MAXIMUM ECONOMY IN OIL.  
MARKED ECONOMY IN FUEL.

Not dependent upon or operated by Steam Pressure, Condensation or Gravity.

Not affected by changes of temperature.

BEING operated by some moving portion of the engine or machine to be lubricated, the "Harlow Lubricator" starts and stops with the engine or machine being lubricated, without requiring the slightest attention from the engineer or operator, always delivering the oil in any amount from a drop to a constant stream.

The cup can be filled at any moment while the engine or machine being lubricated is in operation, without causing any leakage either of oil or steam.

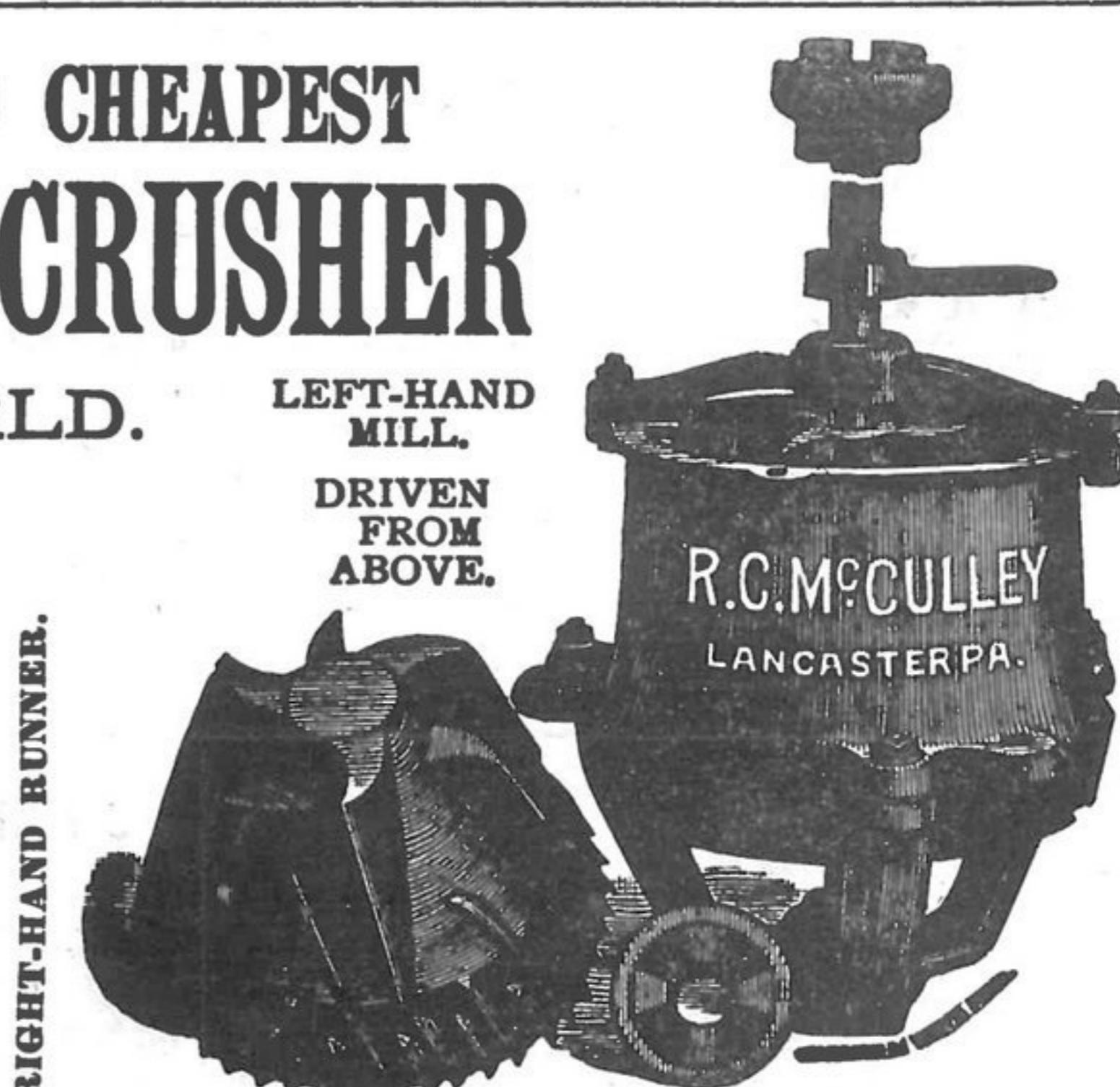
Harlow Lubricator Mfg. Co. BOSTON, Mass.  
U. S. A.

# THE BEST AND CHEAPEST CORN AND COB CRUSHER IN THE WORLD.

LEFT-HAND  
MILL.

DRIVEN  
FROM  
ABOVE.

R. C. McCULLEY  
LANCASTER PA.

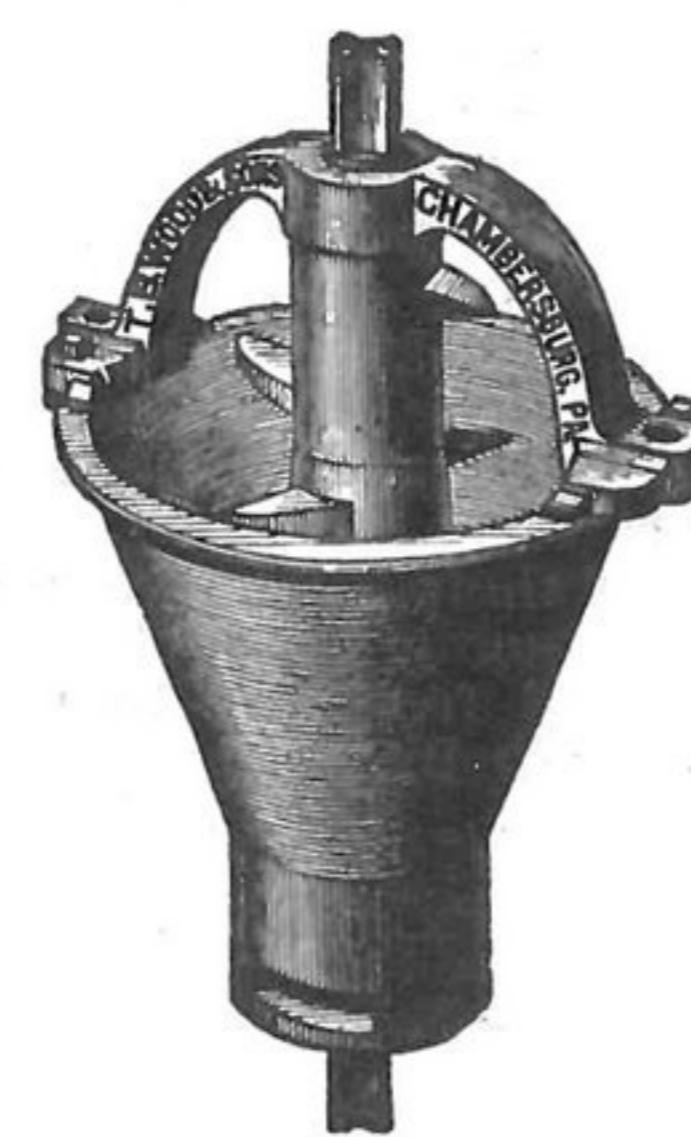


Please Send for Circulars.

**R. C. McCULLEY, LANCASTER, PENN.**

**\$15** Will Buy the Best and Cheapest  
**CORN AND COB CRUSHER**

**IN THE WORLD!**

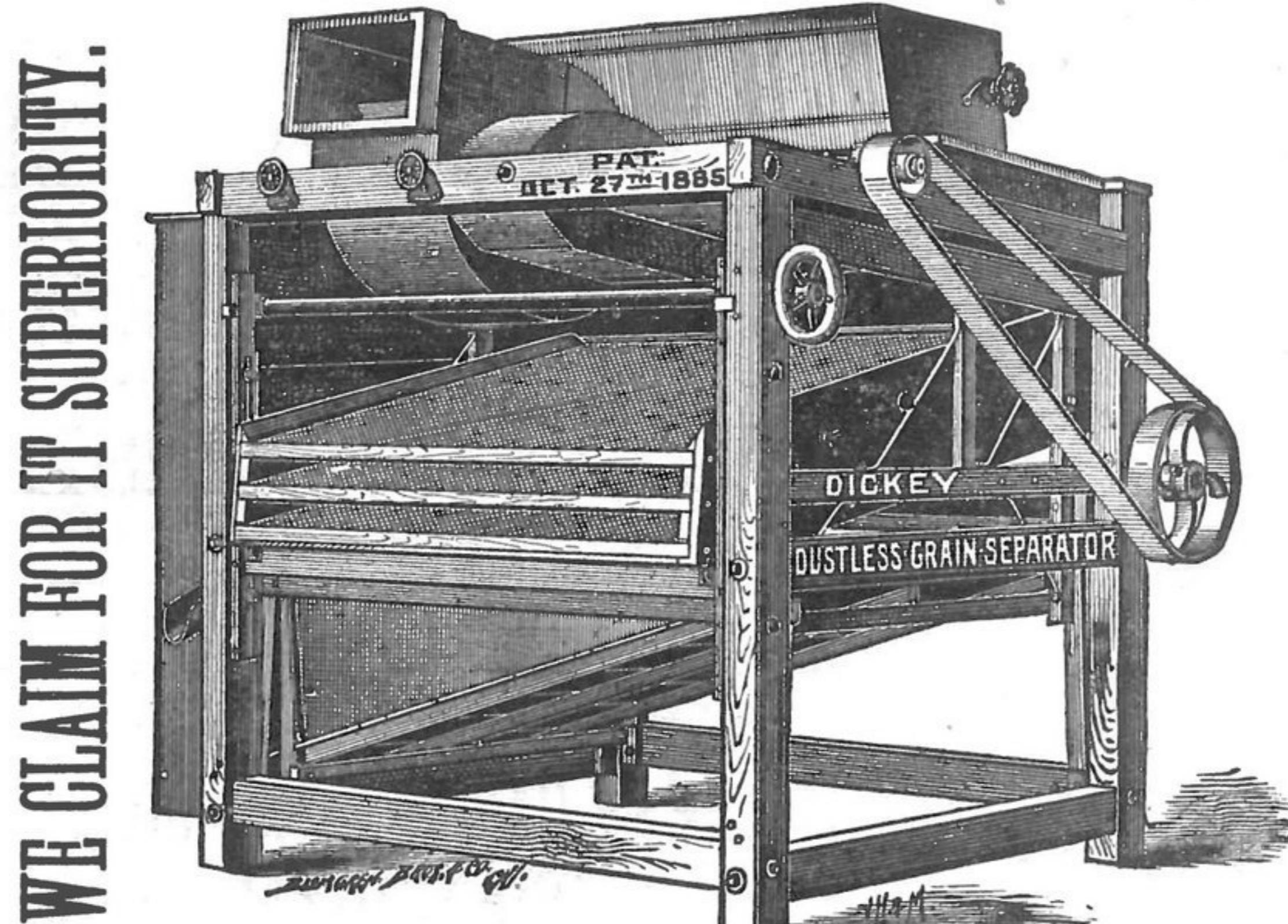


It can be driven either from above or below. Thousands of these Crushers are now in use throughout the United States and Canada, and are giving entire satisfaction. Send for circular, giving testimonials from millers who are using our Crusher, and know a good thing when they see it.

**T. B. WOOD & SONS, CHAMBERSBURG, PA.**

# DICKEY DUSTLESS GRAIN AND FLAX SEPARATOR

This Separator is our latest and most perfect, and guaranteed to be the superior of any now on the market. This machine, as can be seen by the cut, is not a warehouse fanning mill with one patent attachment, but is a Dustless Separator, made for the express purpose of thoroughly cleaning and separating all kinds of grain in large quantities; its construction is such that the working machinery and weight is all within the parts or anchors.



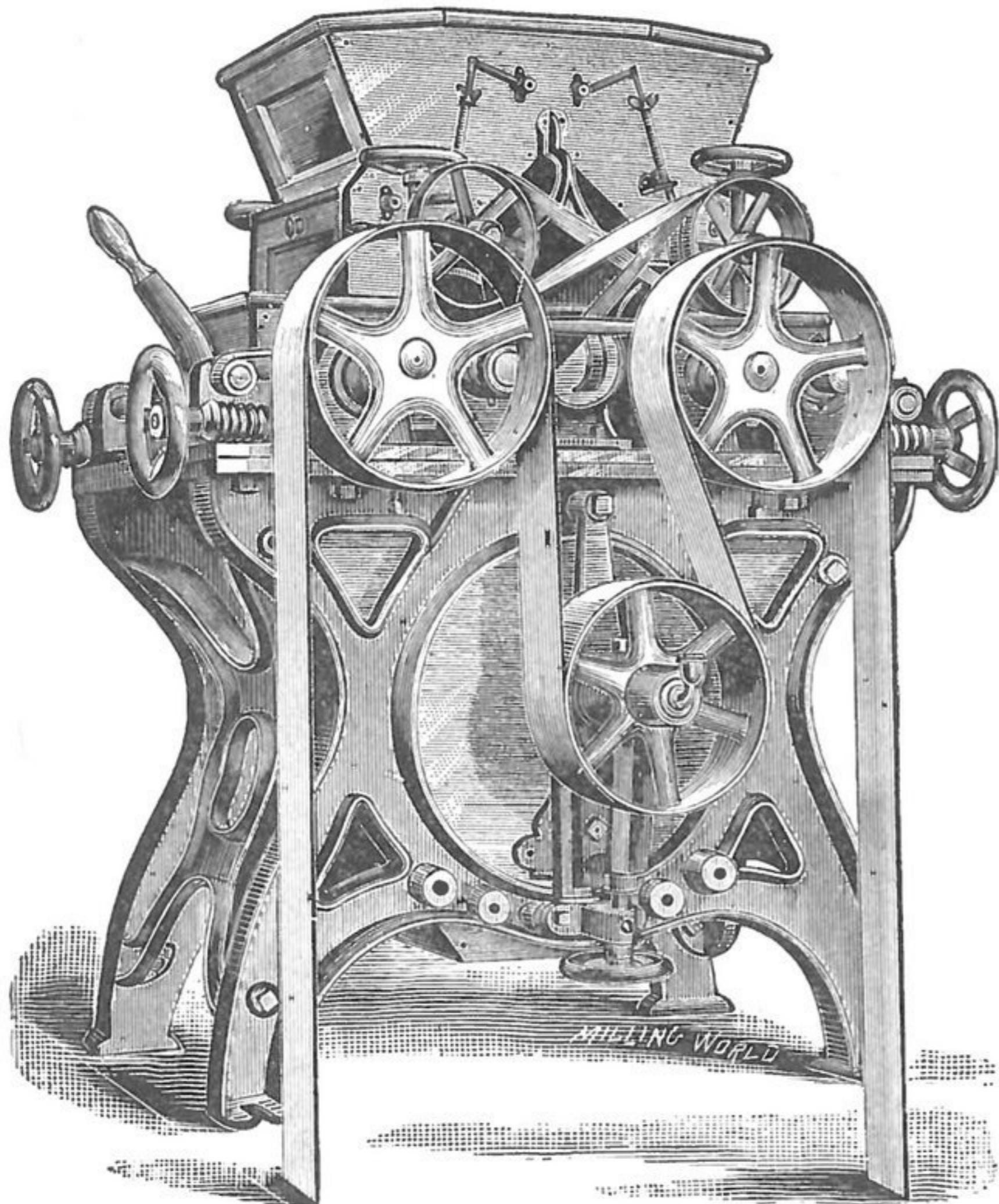
**WE CLAIM FOR IT SUPERIORITY.**

**WE CLAIM FOR IT SUPERIORITY.**

We claim for it Superiority over everything of the kind made, in simplicess, durability, saving of power, capacity and cost of construction. Its height will accommodate any number of spouts from different points, without moving machine. They have a capacity from 700 to 1,500 bushels per hour. We also control exclusively the manufacture of the celebrated Dickey Giant, End and Side Shake, Warehouse Mills, that have attained such a world-wide reputation. Sent on approval to any reliable party. For full particulars address,

**A. P. DICKEY MANUFACTURING CO.** Successors to Dickey & Pease, **RACINE, WIS.**

# JOHN HUTCHISON MFG. CO., Mill Builders and Mill Furnishers.



"The Rickerson." The original six inch 4 Roller Mill. We now own the patents on this mill and after greatly improving the mill manufacture them in four sizes:

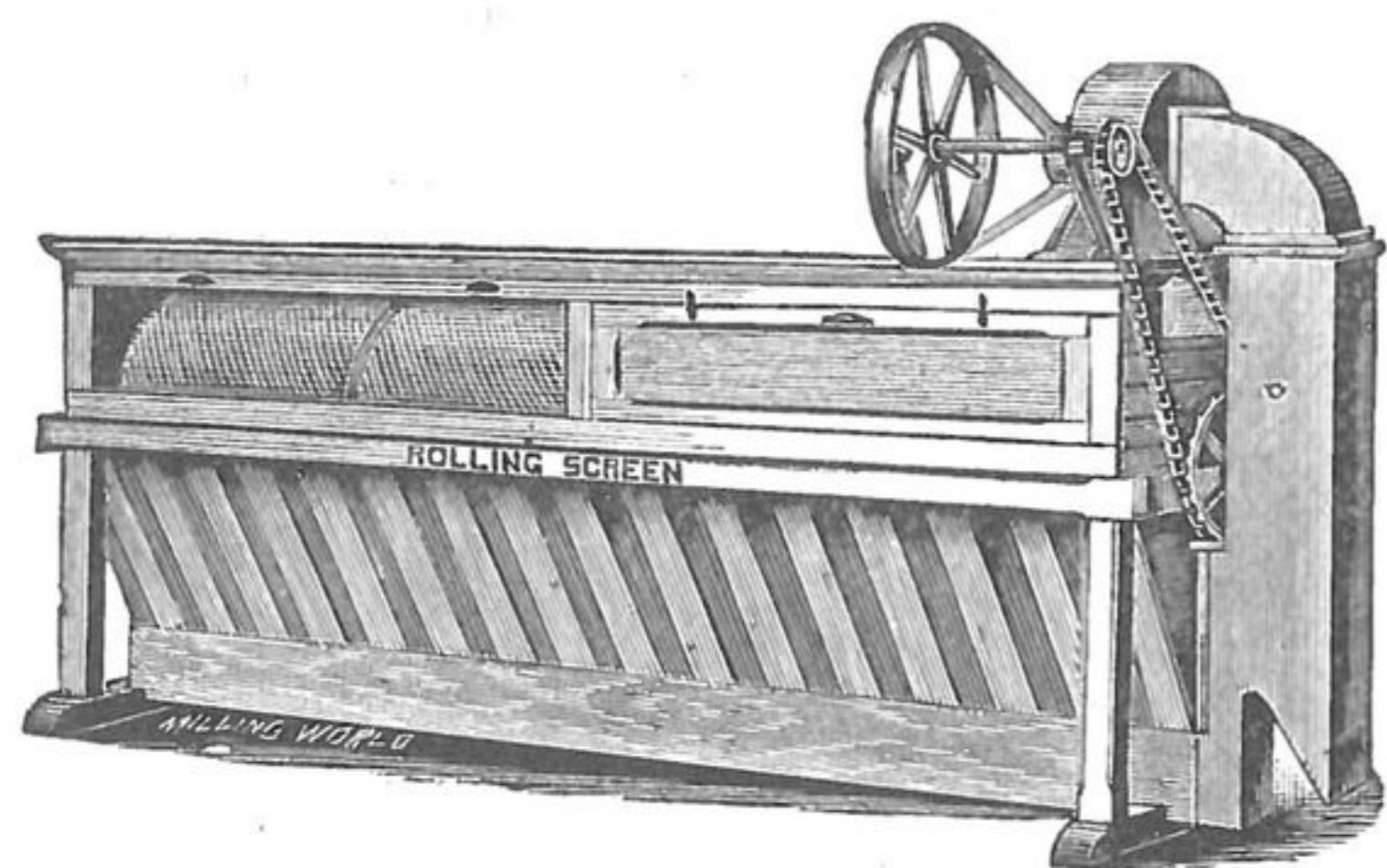
6x12 inch.

6x18 inch.

6x15 "

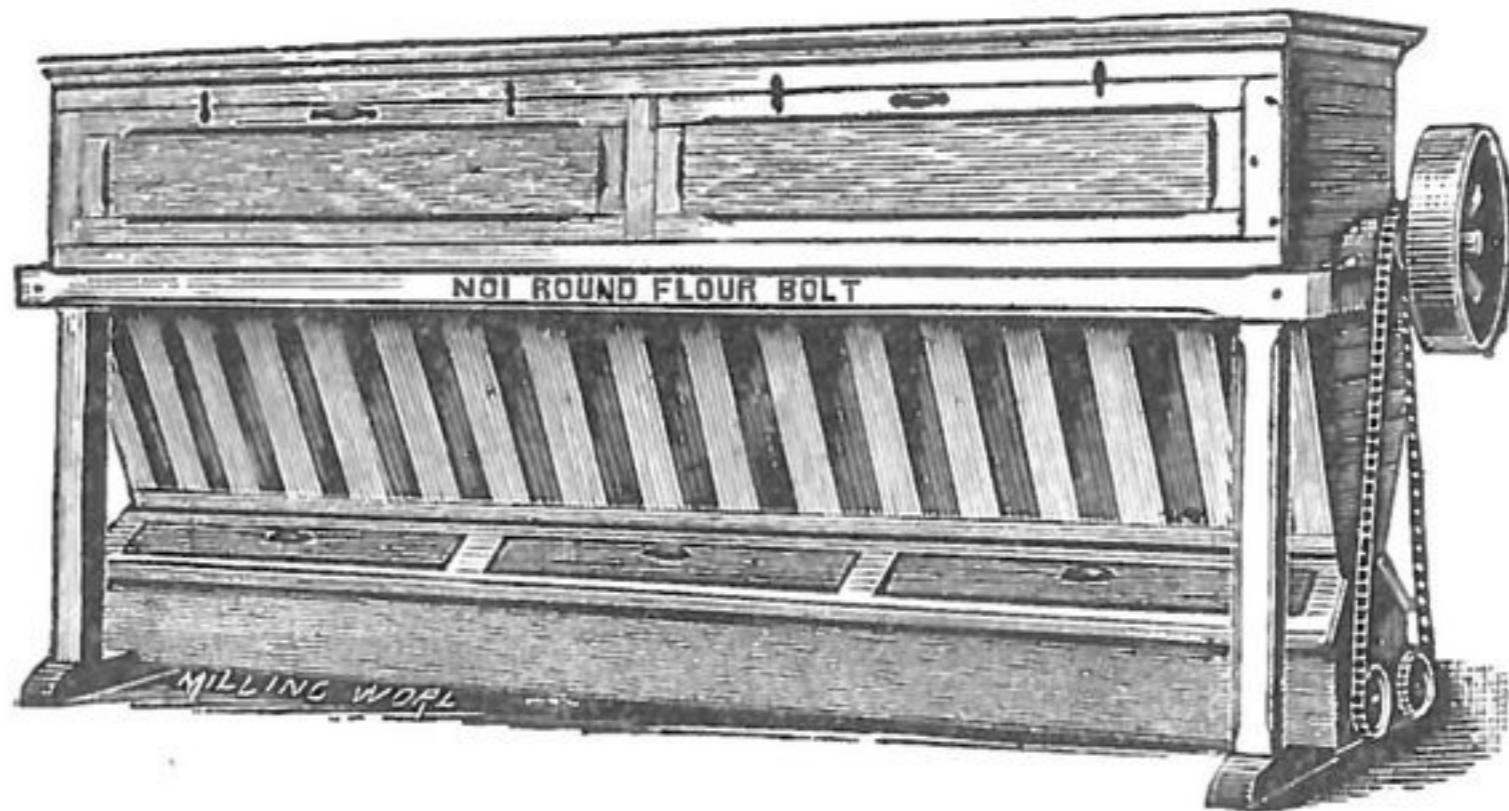
6x20 "

—:o:—

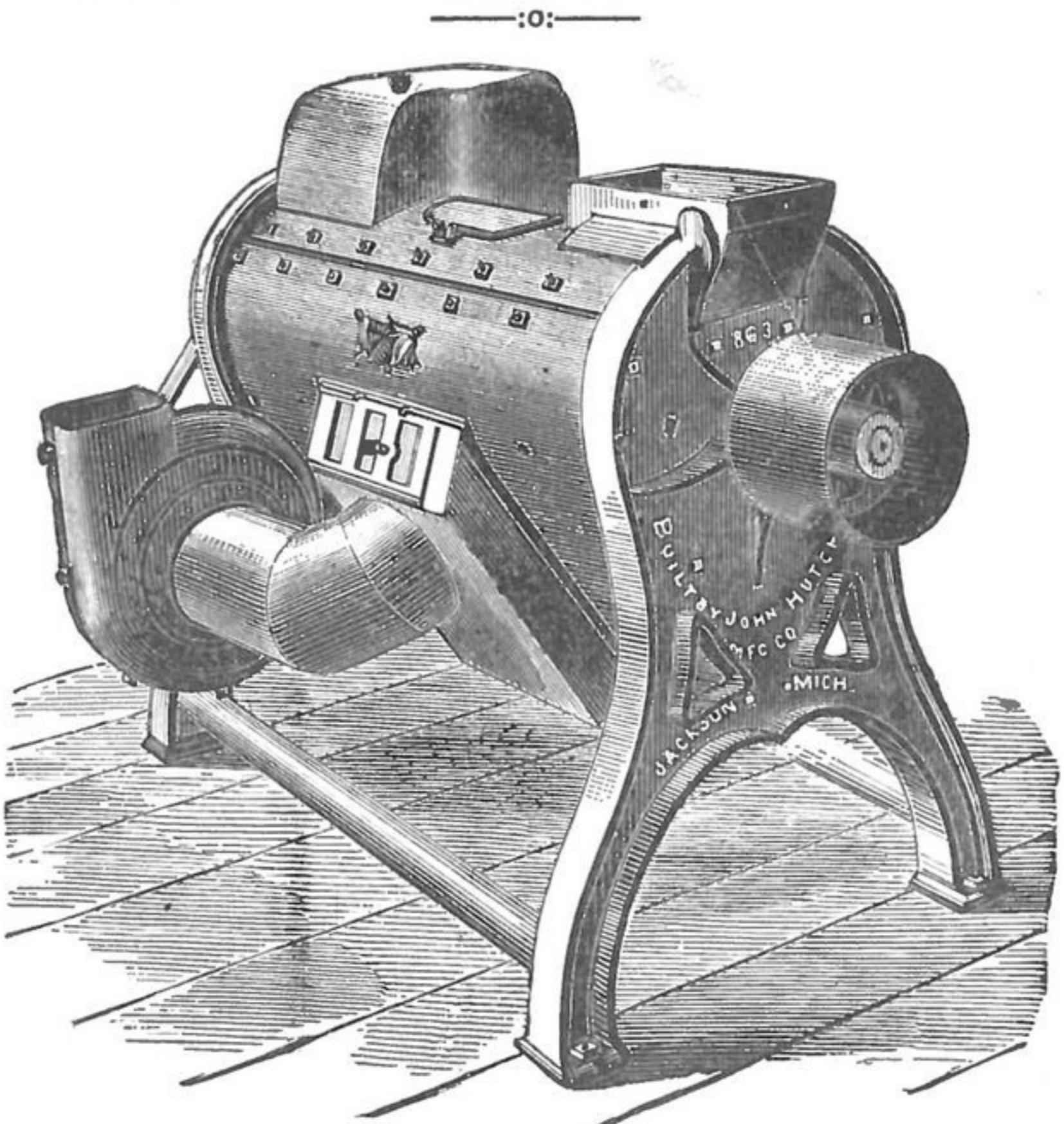


The above cut represents our New Rolling Screen, which is absolutely dustless and has as much scouring qualities as any two scouring machines now being made.

Send for Estimates for Our Full Roller Mills of any Capacity.



The above cut shows our New Round Slow Running Flour Bolt. We also build a Cylinder or Round Scalping Reel and we have lately built a number of new mills of medium capacity, using our Roller Mills, our Round Flour Bolts and Scalping Reels, getting better results than is usually obtained.



Hutchison's New Dustless Iron Corn Sheller, especially adapted for Mill and Elevator use.

—:ADDRESS ALL CORRESPONDENCE TO:—

# John Hutchison Mfg. Co.

JACKSON. - - - MICHIGAN.



ELEVATOR BUCKET.

## PLEASE NOTICE.

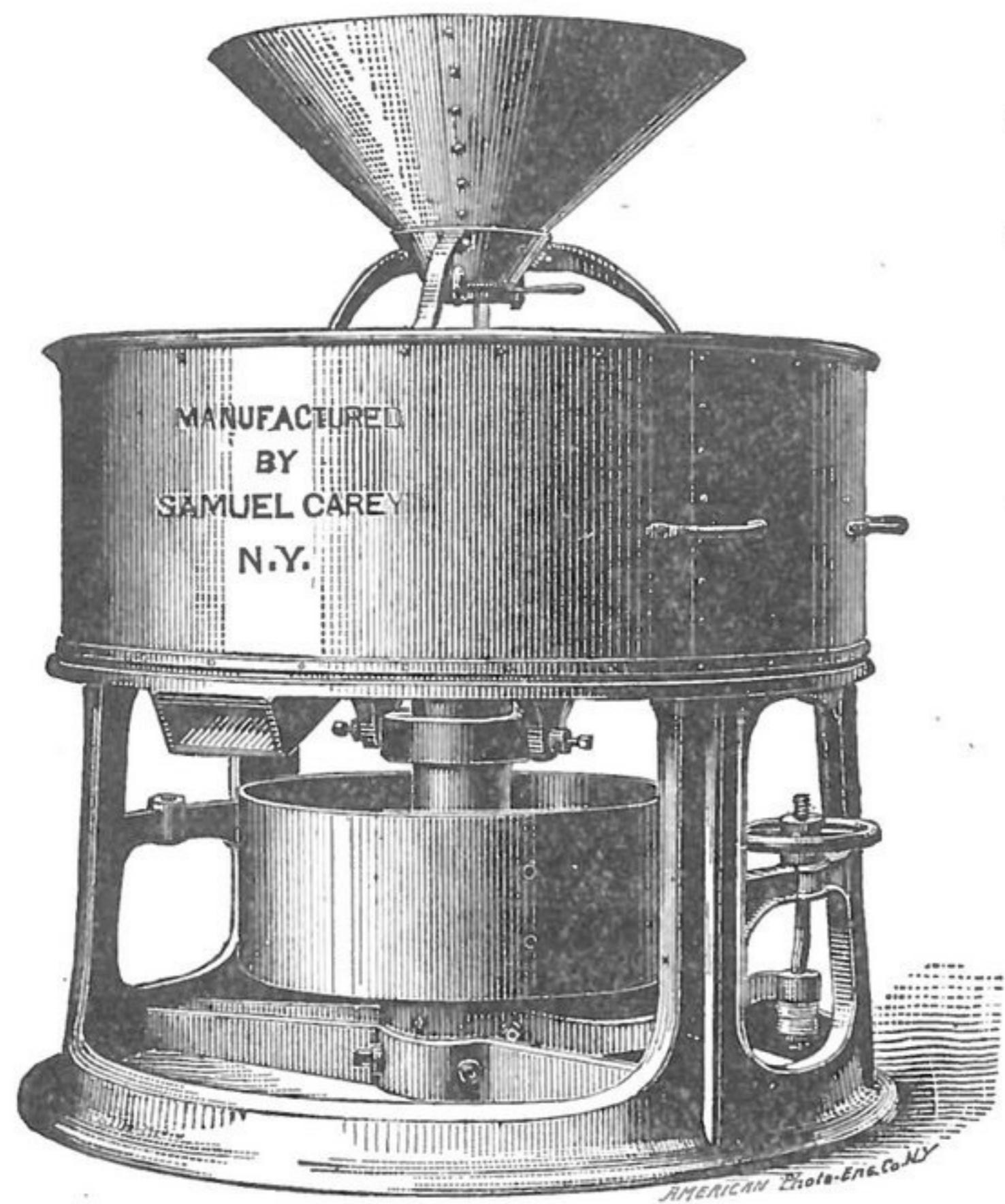
Our patents not only cover Seamless, Drawn, Stamped, Pressed or Forged Elevator Buckets; but also Pre-Date and Cover Round-Cornered Elevator Buckets when made Seamless, and are the Only patents ever issued in the World for a Pressed, Stamped, Drawn or Forged Seamless Elevator Bucket.

Stamping and Pressing of Sheet Metals for all Classes of Work. Also Tinning, Galvanizing and Japanning.

THE AVERY STAMPING CO.,  
Successors to The Avery Elevator Bucket Co.,  
Cleveland, Ohio, U. S. A.



CLAY BUCKET.

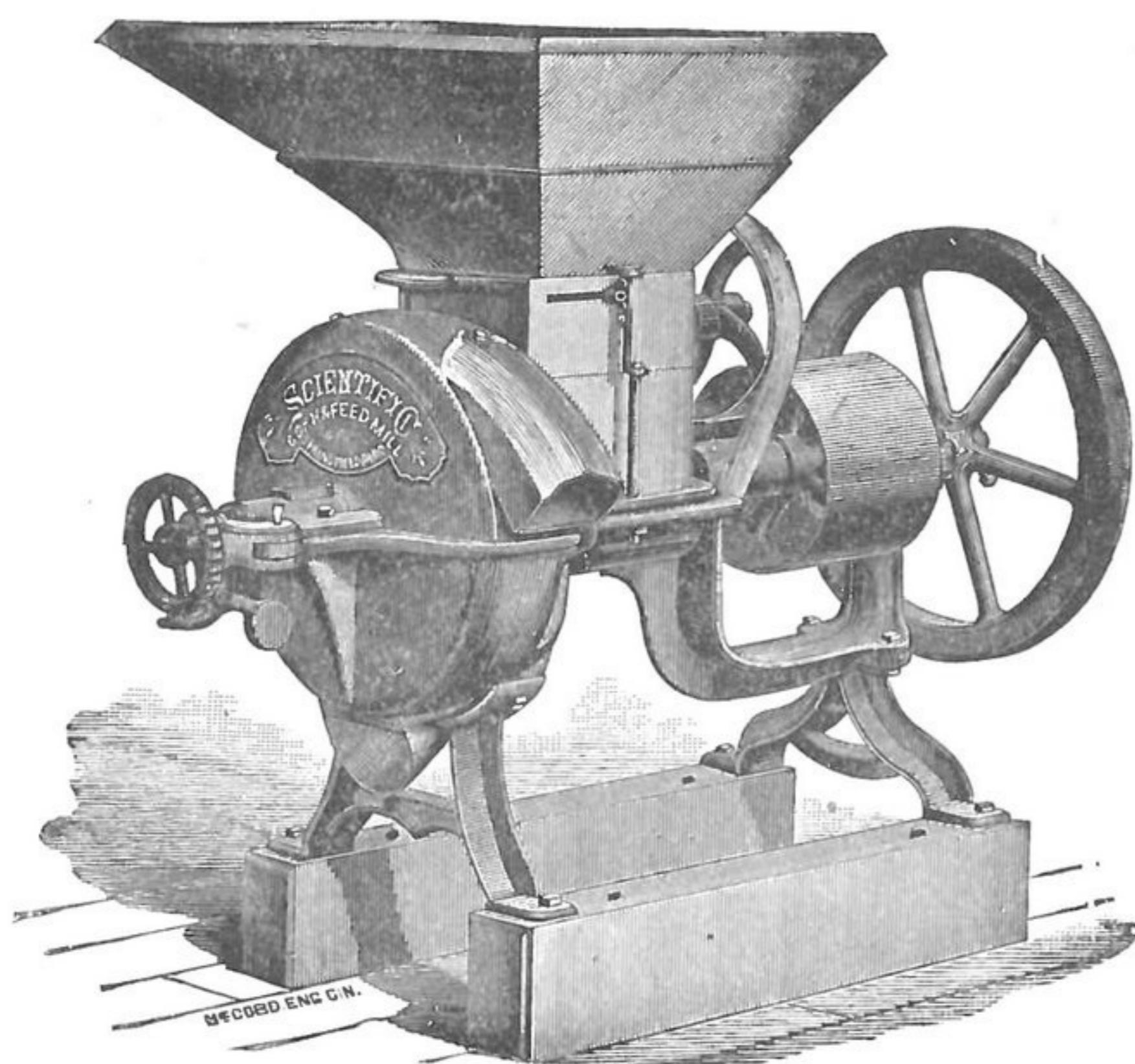


SELF-TRAMMING  
**PORTABLE MILL**  
 BEST GRINDING MILL MADE.  
**BOLTING CLOTH**  
 WRITE FOR DISCOUNTS.

**BURR MILLSTONES**  
**CHEAP.**

Send for "SPECIAL PRICES," Giving Size  
 Wanted, to

**SAMUEL CAREY, <sup>17</sup> BROADWAY, NEW YORK**



—THE SCIENTIFIC—  
**GRINDING MILL.**

POSITIVELY THE BEST MILL ON EARTH.  
 GRINDS PERFECTLY, EAR CORN, SHELL CORN,  
 AND ALL GRAINS.

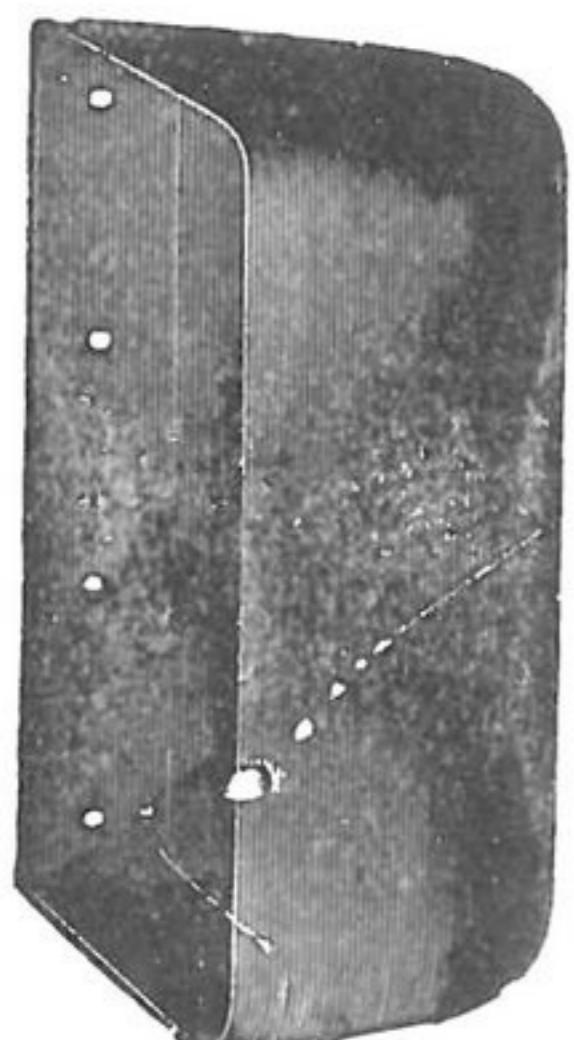
**GRINDING PLATES A SPECIAL METAL**

*Hard as Steel, Guaranteed to Grind from Five to Eight Thousand Bushels before wearing out.*

SEND FOR ILLUSTRATED CATALOGUE, PRICES, ETC.

**THE FOOS MFG. CO.**  
 SPRINGFIELD OHIO.

**STILL ON TOP.**



Perhaps the HIGHEST COMPLIMENT that could be paid the "Salem" bucket is the fact that during the past few years ITS SHAPE HAS BEEN SO CLOSELY IMITATED by other manufacturers as to infringe our patented rights, but experience reveals the IMPERFECTIONS OF IMITATIONS, and we therefore take it as a FURTHER COMPLIMENT to the "SALEM" bucket that some of its old patrons who were *Induced to Try the Imitations have now Returned to the Salem Bucket, thereby Acknowledging it to be the Most Satisfactory.* Don't be deceived by other makes of buckets that are claimed to be "Just as Good." Insist upon having the ORIGINAL AND RELIABLE SALEM BUCKET. All legitimate Salem buckets are plainly marked with the word

**SALEM**

**W. J. CLARK & CO.,** SOLE Manufacturers **SALEM, OHIO.**  
 THORNBURGH & GLESSNER, General Agents, CHICAGO, ILL.